An Inaugural Address

ON THE

PROBLEM OF THE CONSUMPTIVE POOR.

Delivered at the Opening of the Session of the Ulster Medical Society in the Museum, Belfast, on Nov. 4th, 1897,

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GENTLEMEN,—Michelet, the great French historian, once expressed the belief that the civilised races of mankind would eventually die out as the result of the ravages of phthisis and I have little doubt that if the rapid growth of population and the increasing tendency for men to mass themselves together in large urban centres had not been accompanied by a corresponding development of sanitary science, a wider recognition of the principles of hygiene, and a higher standard of comfort the prediction of Michelet would have been before now in a fair way of fulfilment.

Let us endeavour to form some rough estimate of the probable amount of phthisis in existence. No precise data can be obtained for a calculation of this kind, but the number of deaths from this cause are available and a comparison of these with the probable duration of the disease will afford the basis for a conclusion sufficiently probable for the purpose which I have in view. In the year 1890 Dr. Arthur Ransome estimated the deaths in the British Islands from tubercle in its various forms at 70,000. He also stated that "in the form of phthisis at ages between fifteen and forty-five—the most useful stages of human existance—it kills more than a third of the people who die and nearly half between fifteen and thirty-five." Dr. Chas. Denison, of Denver, computes that 40 per cent. of the deaths in New York between the ages of twenty years and forty years are due to phthisis. The returns of the various insurance companies show that between the ages of twenty years and fifty years phthisis is responsible for a fourth, and in some companies a third, of the deaths—a sufficiently striking fact when we recollect that these are picked lives. I find by the Registrar-Generals' Reports for 1895 that the deaths from phthisis in that year in England numbered 42,490, in Scotland 7688, and in Ireland 9768, making a total for the kingdom of 59,946. These figures are considerably under the average for the last fifty years, but let us assume that the annual deaths from phthisis in the British Islands are about 60,000. Can we from these figures form any sort of estimate of the probable number of cases of the disease existing at the same date in the same area? In order to do so we should require to determine the following points: (1) the average duration of fatal cases; (2) the number of cases which recover; and (3) the number of phthisical patients who die from causes other than their pulmonary malady—e.g., accident or intercurrent disease.

It is only as regards the first of these points that any definite information is procurable. Laennec and Louis estimated the average duration of the disease at two years, a calculation which still exerts some influence upon medical opinion although it has been long ago shown to be erroneous. Pollock found that at the end of two and a half years the majority of his hospital patients had still a fair expectation of life. C. J. B. Williams and Theodore Williams found that amongst 1000 cases occurring in the upper classes the average duration of 198 cases terminating fatally was seven years and eight months, and of the remaining 802 who were still living the average duration was eight years and two months. Against the rapid cases we must set the very chronic cases which are not rare. Wilson Fox mentions cases recorded by Laennec, Andral, Portal, Bayle, Flint, Walshe, and Williams where the disease lasted twenty, thirty, and even forty years. I had recently under my care a gentleman with well-marked affection of both apices in whom the disease set in with violent hæmorrhages just twenty years ago, in the autumn of 1877. He is still in fair health. I believe such cases, although exceptional, are not of excessive rarity and a due consideration of them must lead us to expand considerably our ideas regarding the average duration of the disease. Putting all the facts together I am inclined to think that the average duration of phthisis among all classes may be put safely at from three to four years. Sir Richard Douglas-Powell, to whom I referred this point and whose authority will be universally recognised, writes me that he thinks this calculation "quite within the average mark." As regards the proportion of cases which recover they probably constitute a by no means negligable quantity. To this subject I shall hereafter return. The number of phthisical patients who die from intercurrent maladies or from accident and violence must be considerable, but no statistics on the subject are available. Allowing due weight to all these considerations and admitting that the conclusion reached is somewhat speculative we may fairly estimate the number of persons suffering from phthisis in the British Islands at *not less than a quarter of a million*. That this calculation is probably under rather than over the mark will become evident if we consider the most authoritative figures available regarding other countries. Professor Leyden in an address delivered at the Congress of Budapest on Sept. 7th, 1894, calculated the deaths from phthisis in the German Empire at 170,000 per annum, the deaths in Berlin being 4500. From these facts he concludes that the number of phthisical patients alive in Germany exceeds a million. A recent German Commission estimated the sufferers from tuberculous disease at 1 in 50 of the population. I have no means of forming a correct judgment as to the accuracy of these calculations and it would be presumptuous in me to criticise the views of so distinguished an authority as Professor Leyden. I merely wish to point out that my own estimate as regards this country probably errs on the side of caution.

It is important with a view to our present purpose to form some rough estimate as regards what proportion of this quarter of a million of phthisical patients occur among the upper and well-to-do classes, and what proportion among the classes which usually seek hospital relief. No materials exist for a satisfactory calculation of this kind, but as some concrete figure is necessary, not so much for the purpose of reinforcing an argument as to give some degree of definiteness to our ideas, let us calculate the former proportion at one-fifth and the latter at four-fifths. If these calculations are well-founded—and they are put forward with unfeigned diffidence—we reach this conclusion—that there are in these islands at the present time about 200,000 persons suffering from phthisis who might be expected to seek hospital relief. What provision is made for dealing with this vast mass of misery and suffering? London has four chest hospitals with accommodation, as Dr. Theodore Williams informs me, for about 640 patients. There are chest hospitals, consumption hospitals, or sanatoria at Bournemouth, Ventnor, St. Leonards, Torquay, Liverpool, Manchester, Newcastle-upon-Tyne, Bridge of Weir (Renfrewshire), Edinburgh, Newcastle (Co. Wicklow), and Belfast. The total accommodation in these institutions would appear to be about 1160 beds. So that, allowing for the fact that many of these beds are frequently occupied by cases of heart disease, bronchitis, &c., we reach the startling conclusion that the nation provides about one bed for every 200 phthisical patients who might be expected to demand and require hospital relief. I do not overlook the obvious fact that many of these phthisical cases enjoy a certain fair amount of general health and that a considerable number of them are earning their living, but it will be admitted that there are very few phthisical patients among the lower classes who either do not from time to time require hospital treatment for one of the many complications of their malady or who would not benefit by a temporary sojourn in a well-organised sanatorium. To fortify my position and protect myself against the suspicion of exaggeration permit me to quote the statement of Dr. Hermann Weber that "well-arranged special hospitals for the treatment of consumption have accommodation only for one sufferer in a thousand." My calculation is rather less appalling, but it shows a condition of things which will be admitted to constitute a dark blot on our boasted civilisation.

To what causes are we to attribute this patent gap in the network of charity which, happily, in this country covers the greater part of the field of suffering? First may probably be placed the general feeling of hopelessness in face of a problem which seems to present insuperable difficulties. A further and not less important reason for the

general apathy regarding the pitiable condition of the phthisical poor is, as I fear we must all admit, the divided counsels and doubtful voice of the medical profession on this subject. The public naturally look to us for guidance in a matter of this kind and that guidance has not been given—at all events with sufficient emphasis and unanimity to make it effective. It would, however, be most untrue and unjust to assert that the medical profession has been entirely silent on the subject. Most of the special workers in this field of practice have from time to time raised a warning voice and endeavoured to point out a better way; but the general mass of the profession has not made its influence felt. What we need is a consensus of medical opinion comparable to that which now upholds the principle of compulsory vaccination and insists upon the erection of special hospitals for fever. Is it too much to hope that such a consensus of opinion may be attained amongst us as to the best solution of the problem of the phthisical poor remembering what Alfred de Musset once said: "To formulate general ideas is to change saltpetre into powder"?

Let us first of all inquire what is being done elsewhere with regard to this question, to which end I will endeavour to give a brief sketch of the present state of accommodation for phthisis in different parts of the world, distinguishing between those institutions where the patient has to pay for the cost of his maintenance and those designed especially for the poor.

Germany.—Of sanatoria for paying patients we may enumerate the following:—1. The Brehmer Sanatorium at Görbersdorf in Southern Silesia. This institution is situated on the Riesengebirge at an elevation of 561 metres above sea-level. Its erection was begun in 1859 and the principles and methods therein developed so successfully by Dr. Brehmer have been the seed from which all the modern developments in the treatment of phthisis in Germany have sprung. In the near vicinity of Görbersdorf there are several subordinate sanatoria—viz., the Sanatorium Roupler and the Sanatorium de la Comtesse Packler. 2. The Falkenstein Sanatorium near Cronberg on the Taunus Mountains, twenty-five kilometres from Frankfort-on-the-Main. This institution was founded in 1874, and under the able direction of Dr. Dettweiler it has achieved great success and well-deserved repute. I had an opportunity of visiting Falkenstein a few years ago and I have recently been in communication with Dr. Dettweiler, to whom I am indebted for much valuable information. The sanatorium is situated at an elevation of 420 metres above sea-level and is surrounded by pine forests. The situation is open and airy, commanding a fine prospect of the valley of the Main, and there is a fair amount of shelter. 3. Hohenhonnef on the right bank of the Rhine between Linz and Bonn. This sanatorium was inaugurated in 1892 and is one of the finest and most complete in Germany. 4. Reiboldsgrun in the Erzgebirge Mountains of Saxony was founded in 1873. This sanatorium is surrounded by pine forest and the soil is volcanic. The elevation is 690 metres. 5. St. Blasien (elevation 772 metres), Badenweiler (elevation 420 metres), Nordrach and Schömberg (elevation 650 metres) are all in the Black Forest. 6. The Harz Mountain Sanatoria—viz., Saint-Andreasberg (elevation 600 metres), Rehberg (elevation 150 metres), and Altenbrack.

Other institutions more or less devoted to the treatment of phthisis exist at Kissingen, Aussee, Baden-Baden, Blankenstein, Berkd, Dillenburg, Meran, Ems, Brückenau, Sophienbad, Schönberg, &c. Of hospitals for the phthisical poor Germany reckons the following: 1. Falkenstein. This is a small institution close by the Dettweiler Sanatorium, already described, which is for pay-patients. 2. Ruppertshain, near Königstein, about an hour's drive from Falkenstein. 3. The Malchow Hospital, in the neighbourhood of Berlin. 4. At Saint Andreasberg, in the Harz Mountains, where (as already mentioned) there is a sanatorium for pay-patients. A small hospice also exists for the poor.

Several of the German towns—e.g., Bremen, Stettin, Dresden, Hanover, and Worms—either possess or have in contemplation hospitals or sanatoria for poor phthisical patients.

Switzerland.—1. Davos, elevation 1560 metres, so well known for the successful treatment of phthisis, possesses several sanatoria. The chief one is that under the direction of Dr. Turban. There are also the Maison des Diaconnesses and the Villa Pravignan. 2. Arosa, not far from Coire, at an elevation of 1856 metres, possesses a sanatorium where the same methods of treatment are pursued as those found efficacious at Davos. 3. Leysin, elevation 1450 metres, above Aigle in the Rhone Valley. 4. Wiessenbourg, in the Valley of Timmen, to the west of the Bernese Alps. The elevation is 890 metres.

The above are for pay-patients. Of sanatoria for the phthisical poor Switzerland reckons the following: 1. The sanatorium at Schwendi overlooking Lake Thun. This was erected by the town of Berne in commemoration of the sixth jubilee of the Swiss Confederation. 2. The sanatorium at Bâle. This town also possesses a sanatorium at Davos-Dörfli recently erected at a cost of £20,000. Other towns and cantons of Switzerland have followed or are about to follow the excellent example of Berne and Bâle—e.g., Glarus, Zurich, Geneva, Vaud, Neufchatel, Saint-Gall, the Grisons, and Zofingen. There is good reason to hope that in a short time Switzerland will possess a complete chain of hospitals for the phthisical poor, thus affording a proof of what even a very poor country can effect in the cause of charity.

Austria-Hungary.—The only Austrian sanatorium of which I can obtain any information is that of Neu-Schmecks in the Carpathian Mountains at an elevation of 1004 metres. A hospital for poor phthisical patients is projected at Alland, near Vienna.

Norway.—The sanatorium Tousaasen is situated between Bergen and Christiania at an elevation of 600 metres. The Norwegian Parliament has recently decided to devote two disused leper hospitals to the treatment of poor phthisical patients.

Russia.—There are the following sanatoria: (1) Oranienbaum, near Peterhof; (2) Slawata in Volhynia; (3) Halila in Finland; and (4) Yalta in the Crimea.

Italy.—Professor Tommasi Crudeli, of Rome, writes to me: "No special hospital for consumptive patients has till now been founded in Italy. They have only some special and isolated sections in many of the general hospitals. There is some talk now of building some sanatoria in the Alps, but till now it is only a remote hope and no sanatorium of the kind exists in Italy." It should be remembered, however, that Italy possesses quite a number of hospitals scattered along the Adriatic and Mediterranean coasts for the treatment of tubercular disease of bones and joints.

France.—The following sanatoria exist: 1. Angicourt, in the department of the Oise. 2. Canigou, in the Pyrénées Orientales. 3. The Sanatorium Touraine, in the environs of Tours. 4. The Ormesson Hospital, on a plateau above the valley of the Marne. 5. The Hospital of Villiers-sur-Marne. 6. The sanatorium at Saint-Martin-Lantosque, near Nice, at an elevation of 1000 metres.

America.—The following sanatoria exist: 1. Saranac Lake Sanatorium, in the Adirondack Mountains (elevation 1600 ft.), under the direction of Dr. Trudeau, founded 1884. This is the best-known sanatorium in America and has been very successful. 2. The Sharon Sanatorium (elevation 300 ft.), near Boston. 3. The Ashville Sanatorium, in North Carolina (elevation 2250 ft.). 4. The Chestnut Hill Consumption Hospital, Philadelphia. 5. The Bellevue and the Gleckner Sanatoria, in Colorado. As regards the provision for poor patients Dr. Osler writes me from Baltimore: "No attempt has been made to provide proper hospitals for consumptive poor in America."

For many of the above facts relating to foreign sanatoria I am indebted to the works of Knopf and Léon Petit and to Dr. R. W. Philip of Edinburgh. The above enumeration makes no pretence to completeness as new institutions are constantly springing up. As regards our colonies a movement is at present on foot in Sydney, New South Wales, to provide proper hospital accommodation for phthisis, but the matter is still only in the tentative stage and some difference of opinion appears to exist as to the best method of procedure. One party advocates the foundation of a central institution in the city with branches in the country while the other would rely solely upon small cottage hospitals.

Let us return to the case of Germany and Switzerland, where the most substantial progress has been made. Dr. Brehmer, of Görbersdorf, and Dr. Dettweiler, of Falkenstein, have been the great pioneers of the modern movement and to their teaching and example we owe a large debt. The broad principles which underlie their methods are identical and may be summarised as follows: That phthisical patients should be treated in special institutions erected for the purpose on a healthy, airy, fairly sheltered, and if possible elevated situation; that the treatment should be essentially hygienic and dietetic, medicinal treatment and

specific remedies being assigned a very subordinate place; that only early cases, or those offering a fair hope of cure, permanent arrest, or at least substantial benefit, should be eligible for admission; that strict medical control and the most vigilant supervision of the patients' habits, occupations, and amusements should be enforced, and that every precaution should be taken to destroy the virus and limit the dissemination of the disease. It is to be observed that the sanatoria in which these principles have been successfully carried out present many variations as regards situation and climate. Görbersdorf, the parent institution of the kind, is at an elevation of 1700 ft.; Falkenstein, 1300 ft.; Hohenhonnef, 770 ft.; Rehberg, in the Harz Mountains, 490 ft.; and others at still lower levels. The climate of the Silesian Mountains, or of the Taunus range, or of the Harz Mountains, or of the Rhine valley cannot be considered as specially favourable for phthisical patients, yet, as we shall see, the results of treatment obtained in these localities are on the whole encouraging and show that in a certain considerable proportion of cases the disease can be successfully combated without removal to the Alps, Egypt, South Africa, Colorado, Australia, or any of the other localities which have obtained a special repute in the treatment of phthisis. There is the more need to emphasise this point as our efforts to provide ampler accommodation for phthisis in this country are sure to be met with the objection that the climate is unfavourable and that therefore nothing can be done. This is one of those half truths which are often so much more dangerous than actual falsities. The best answer to this objection is to be found in the example of Germany. Without denying or minimising the considerable influence which climate exercises upon phthisis it is important to recognise that good results may be obtained even where the climatic conditions are only moderately favourable. It is obvious that for the great mass of phthisical patients a distant and expensive journey and a residence in a foreign country are quite impracticable.

These methods of treatment have now been in vogue in Germany for more than a quarter of a century and the number of cases thus treated has been very large. There should be no difficulty in forming a correct estimate of the value of these methods and whether they are suitable for imitation. The authority and reputation of Dr. Brehmer and Dr. Dettweiler stand so high that their reports may be regarded as conclusive, but it is only fair to add that these institutions have been repeatedly visited by British physicians who have fully corroborated the favourable reports of these gentlemen. Dr. Hermann Weber has given testimony in this sense. Dr. Dettweiler writes to me (Falkenstein, Oct. 16th, 1897) as follows: "At the Falkenstein Sanatorium we reckon about 30 per cent. of absolute or relative cures. In the latter class are comprehended those cases which, although restored to good general health and capability for work, still show some slight signs of remaining disease. The proportion of patients who derive signal benefit from the treatment and who are able to return for a longer or shorter time to their labours in the world is fully 45 to 50 per cent. Even severe cases often obtain surprising benefit, but it is not desirable to send cases characterised by hectic fever, much diarrhœa, amyloid degeneration and great loss of flesh." These statements touch the very kernel of the subject of any national provision of hospitals or sanatoria for phthisical patients. Is it true that a certain material proportion of cases can be cured and that a much larger proportion can be restored to years of useful and fairly comfortable life? The whole case stands or falls with these propositions and therefore I shall ask you to consider with me for a little the evidence which is available regarding the curability of phthisis.

Gentlemen, I think the time has come when we should cease to speak of the cure of phthisis with bated breath as if it were a vain pretence or a mere hallucination. Evidence is accumulating both on the clinical and on the pathological side to prove that a considerable number of persons pass through an attack of pulmonary tuberculosis, recover their health and live to the average period, ultimately dying from some other malady. I take the following statistics from Wilson Fox. In the first report of the Brompton Hospital, which included 535 cases, cure or complete arrest was recorded in 5·6 per cent. In the second Brompton report, which included 6001 cases, cure or complete arrest was recorded in 4·1 per cent. Williams records cure in the case of 3·1 per cent of 700 patients who remained in England. Flint records cure in 12·1 per cent. of 74 patients who tried various climates, especially the sea-voyage. Hermann Weber records cure in 24·5 per cent. of 75 patients who tried the high altitudes. Clifford Allbutt's proportion of cures among patients resorting to the high altitudes was 22·5. Spengler, of Davos, had 21·3 per cent. of cures in 342 cases. These figures cannot be dismissed with a smile of incredulity. The writers in question are among the highest authorities upon pulmonary disease and if we cannot accept their figures there is an end to all statistical evidence in medicine. I should like especially to emphasise the fact that 4 or 5 per cent. of cures were obtained among patients who had no change of climate. Again, it has been found that a large proportion of persons dying from accident or old age bear traces in their lungs of having passed successfully through an attack of pulmonary tubercle. How often, also, do we meet in practice with elderly patients suffering from various maladies who tell the story of repeated pulmonary hæmorrhages in youth or of having been supposed to be "far gone in consumption" and yet recovered. It has been too much the habit to put these cases down to errors in observation and mistakes in diagnosis. The newer light which we have obtained upon the subject justifies the belief that no inconsiderable proportion of these cases are instances of arrest of the disease owing to tubercle becoming obsolescent.

The utility of special institutions for the treatment of phthisis does not depend solely upon the consideration that a certain number of cures are effected in them. We must remember the large proportion of patients who cannot, unhappily, be cured, but who can be restored to comparative health and well-being and enabled to resume for a longer or a shorter period their place in the world. No one who has studied the subject will deny that this class is a considerable one. To prolong life when it is doomed to suffering and uselessness may well seem a doubtful benefit, but the patients who rally from an attack of phthisis are not always, perhaps not usually, in this sad plight. Often they regain a very considerable enjoyment of life and the difficulty is to persuade them that their condition is precarious and that a relapse is probable. Not infrequently if they can be induced to select healthy occupations a considerable period of useful existence is before them. The very important subject of how far these special institutions may be made available for preventing the dissemination of the infective material of the disease and so limiting its propagation must be considered in a little detail. Many have been the fluctuations of popular and professional opinion upon this important subject and although we are probably nearer unanimity at present than we have ever been before we are still far from having attained to it. A belief in the contagiousness of phthisis has long prevailed in Italy and Spain more perhaps as a popular opinion than as a scientific doctrine. The contagionist view which received a great accession of strength from Koch's discovery is now widely prevalent upon the continent, especially in Germany, but never seems to have taken deep root in this country. The results of the inquiry instituted by the Collective Investigation Committee of the British Medical Association were equivocal. A large majority of the medical men how responded had seen nothing to warrant a belief in the contagiousness of the disease, but a respectable minority took the opposite view. The cases which were chiefly relied on in support of the contagionist view were those in which the disease appeared to have been transmitted from husband to wife or from wife to husband. There were 188 such cases reported and it is notable that of these 119 were cases of supposed transmission from husband to wife and only 69 from wife to husband. Dr. Longstaff in his work "Studies in Statistics" has, however, shown that these cases of phthisis in husband or wife when the other partner had been previously affected are not more numerous than would arise on the general principle of averages without postulating any theory of contagion. I content myself with giving my opinion that the direct transmission of phthisis from one individual to another is a rare event. Not the less, however, is the disease in all probability infective. All the facts of the case seem most easily explicable on the theory of Koch and Cornet that phthisis is chiefly disseminated by means of dust rendered infective by the drying and pulverisation of sputum from phthisical cases. According to this view the infectiveness resides rather in the rooms occupied by patients than in the patients themselves and the disposal of sputum becomes a question of the first

importance. That the inhalation of infected dust is the usual method by which phthisis is contracted is at least a highly probable theory, but the report of the recent Royal Commission on Tuberculosis gives ground for believing that the use of tuberculous meat and of milk derived from cows with tubercle of the udder is at least a possible mode of origin of the disease. If we adopt the views of Koch and Cornet the argument in favour of special institutions for phthisical patients is much strengthened. The best prospect of arresting this scourge of humanity lies in preventive measures and no preventive measure is so hopeful as one which would tend to enable us to limit the *materies morbi* to institutions where it could easily be deprived of all infective properties.

The amount of accommodation which would be required to grapple with the huge mass of phthisis existing amongst us would no doubt be enormous, but in that halcyon future—

> "When wealth no more shall rest in mounded heaps,
> But smit with freer light shall slowly melt
> In many streams to fatten lower lands"—

some such scheme as the following will probably be adopted. Every city, town, and commune above a certain rate of population, will have a central hospital for phthisis with smaller branches in the most suitable adjacent locality either in the hills or at the seaside. The function of the central institution will be to receive cases in the first instance, to treat urgent symptoms, such as hæmorrhage, to select the cases suitable for transference to the various coördinated sanatoria, to promote research, and to educate the community in preventive measures. No cases will be received except such as hold out some prospect of decided improvement, advanced and hopeless cases being relegated to homes for incurables. The actual treatment of cases will be undertaken chiefly in the various sanatoria and will probably follow the lines adopted at Görbersdorf and Falkenstein. The following results may fairly be expected: 1. Cure or complete arrest in a certain proportion of cases which will probably be somewhere between the 4 or 5 per cent. hitherto obtained in this country and the 30 per cent. claimed by Dr. Dettweiler at Falkenstein. 2. Material improvement, permitting the patient to resume his work in the world and restoring him to fairly good health for a longer or shorter period. This proportion will probably be a considerable one. 3. The relief of suffering in cases which fail to respond to treatment or make any definite rally. 4. The education of patients in hygienic and dietetic principles and in preventive measures, especially the disposal of sputum. 5. The prevention of infection.

We may derive much encouragement in the fight against phthisis not only from the fact that the efforts made to stamp out the kindred disease of leprosy have been crowned with success but also from the fact that the disease is already steadily on the decline. In the quinquennium 1855–59 there died from phthisis in England and Wales 2648 persons per million living. Twenty years later, in the quinquennium 1875–79, the number of deaths per million living had fallen to 2117, a decrease of no less than 20 per cent. in twenty years. The latest available figures show that this decrease is still happily going on. As during the same period there has been an increased mortality from respiratory diseases other than phthisis it might at first sight appear that the apparent decline in mortality from phthisis was really due to greater precision in diagnosis and the transfer of cases from one column to the other. Dr. Longstaff and Dr. Newsholme have shown conclusively that this explanation will not harmonise with the facts. The mortality from phthisis has decreased at all ages, while the mortality from respiratory diseases has only increased under five and over thirty-five years of age. We may take it as certain that phthisis is sensibly on the decline in the British Islands, and there is the more encouragement to perfect our weapons and urge a more active warfare against it. Other measures in addition to those advocated in this address will be required, such as improvements in the dwellings of the poor, the regulation of unhealthy occupations, the dissemination among all classes of sound views on hygiene, and the means necessary for the prevention of infection, the inspection and control of our meat and milk-supply, the special nurture of children of tuberculous ancestry and the like. But I regard the adequate provision of special institutions for the treatment of the disease as an indispensable item in the programme of preventive measures. The present system of treating phthisis in general hospitals is on many grounds to be condemned. It is certainly bad for the phthisical patients, probably bad for the other patients. It was strongly condemned by the International Congress on Tuberculosis a few years ago and it is quite time for all hospital physicians and those interested in hospital administration to make a resolute stand against it. No phthisical patient ever recovers in a general hospital and his treatment there—with the exception of the relief of urgent symptoms—is little better than a farce.

Medical science and advancing civilisation have practically stamped out the plague, kept cholera successfully at bay, and robbed leprosy, small-pox, and typhus fever of most of their terrors. They are slowly beginning to make headway against a greater foe than all—tuberculosis. That its gradual arrest and final extinction are not only happy possibilities but practical certainties I for one firmly believe. I believe further that the means for attaining this end are already known and that we see the road which must be followed in order to reach the desired goal. That road is long and toilsome—worse still, it is extremely expensive—but the call to follow it is imperative and will some day become irresistible. The duty laid upon the medical profession is to point the line of advance and to lead the van. The results may not fully appear in our day, but "*arbores serit diligens agricola quarum aspiciet baccam ipse nunquam.*" If we are told that these proposals are vain and chimerical, that their realisation would put an intolerable load on the back of already overburdened humanity, let us reply in the glorious paradox of the great prophet-critic of this age: "You tell me what we ask is impossible. That may be so. I can only answer that it is indispensable."

A Lecture
ON
THE PULSE.

Delivered at St. Bartholomew's Hospital on Nov. 11th, 1897, preliminary to the Course of Lectures on Medicine,

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GENTLEMEN,—The object of these lectures on the Principles and Practice of Medicine is to teach you how to recognise disease, how to forecast its course, and how to treat it. The patient or his friends offer you these complicated questions for solution in a particular case. You have to make a diagnosis and a prognosis and to carry out a method of treatment. You cannot take too much trouble to find out what is the matter. When you come to have many patients and to think over the cases in which your diagnosis was wrong you will find that in most of them the solution of the question was within reach had you but noticed and duly considered everything that was before you.

The first duty when you come to the bedside of a patient is to enter into such friendly relations with him as his condition allows. "A good bedside manner" is sometimes mentioned with scorn as an unworthy aid to the practice of medicine. I advise you to think it of importance. It is not an artifice—it consists in feeling and showing kindness to the patient. If he sees at once that you care to relieve him, are intent upon finding out what is the matter with him, and are willing to take any trouble to do so, he will in most cases at once give you his confidence and thus help you to an accurate diagnosis. No other art is needed than that you should do for him all that you would wish done for yourself were his illness your own. English literature contains one perfect description of the way to approach a patient. It is in Sterne's story of Le Fevre, a poor lieutenant who had been taken ill at a village inn and whose illness had been made known to Captain Toby Shandy, a retired officer of Marlborough's, living near the village, by the captain's devoted servant, Corporal Trim, who had seen the patient's son in the kitchen of the inn the night before. "The sun looked bright the morning after to every eye in the village but Le Fevre's and his

afflicted son's; the hand of Death pressed heavy upon his eyelids—and hardly could the wheel at the cistern turn round its circle,—when my uncle Toby, who had rose up an hour before his wonted time, entered the lieutenant's room, and without preface or apology sat himself down upon the chair by the bedside, and independently of all modes and customs opened the curtain in the manner an old friend and brother officer would have done it and asked him how he did, how he had rested in the night, what was his complaint, where was his pain, and what he could do to help him." When in the way most suitable to the particular case and most natural to you you have entered into relations with the patient your first observation will probably be to feel his pulse. So long has this been associated with clinical investigations that a hand feeling the pulse is one of the bearings in the coat-of-arms of our London College of Physicians. In the quaint terms of the Elizabethan heralds, "The chefe an arm charnois out of a clowde argent and azure with the rase of the son golde with a cuffe ermin the hande felenge the powlse of an arme in fesse charnois as more plainely appeareth depicted in the margent."[1] Hippocrates, to whose writings we look for the first beginnings of so many parts of clinical medicine, was clearly accustomed to feel it, though there are not many passages in his books where it is mentioned. He speaks of a slow pulse in lethargy, notices that the pulse has a relation to age and that it is quick in fever. He is said first to have applied the word σφύγμος to the beating of an artery as distinct from any general pulsation, or throbbing as we should say. Herophilus of Alexandria, with whose torcular or wine-press we all became acquainted so early in our studies, wrote on the pulse,[2] and so did many other authors of whom we know little but in quotations. The first physician whose complete writings we possess on this subject is Galen. He died about 200 A.D., just two centuries before the entombment of the Romans or Romanised Britons whose sarcophagi were discovered on the site of our present school buildings. In the latter half of the second century of our era he was the chief physician in Rome. It is not known whether the Emperor Severus visited London in his British expedition, but if he did it is not impossible that there were among his officers patients of Galen who, walking in the country beyond Walbrook, may have considered the strategic advantages of Holborn-hill and Pentonville from the site of our hospital. He was a native of Pergamos in Asia Minor and of course wrote in Greek. His father was learned in mathematics, architecture, and astronomy,[3] and besides giving him much good advice and a taste for learning placed him under the tuition of several learned men of the chief philosophic schools of the time. After this course of study a dream[4] led his father to decide that Galen should be a physician and he studied medicine first at Pergamos and afterwards at Smyrna, Corinth, and Alexandria. In the year 164, when he was thirty-four years of age, he settled in Rome and soon became famous as a physician there. For more than thirteen centuries after his death his writings were the chief authority on medicine, and he was quoted in almost every medical book, whether Christian or Arabian. Subtlety of division and definition and argument are characteristics of his writings, and he never spares words in the discussion of his subject; but his is the prolixity of enthusiasm and of prolonged thought on every aspect of medicine. He is learned, exhaustive, indefatigable. He wrote six treatises, including eighteen books on the pulse. A short treatise on the pulse which he wrote for students gives a summary of his method. First, he says, learn the natural pulse, then appreciate swiftness and slowness, hardness and softness of the coats of the artery, then notice the intervals, observe equality and inequality and varieties of inequality. He then discusses the differences between the pulses of men and women, old and young, with the effects of sleep, of baths, of wine, of food, of mental emotions, and of pain, concluding with a description of the pulse in various diseases. Galen proved by careful experiment that the arteries contain blood and not merely air or spirit, as some of his predecessors had maintained, pointing to their emptiness in the dead body. Nevertheless, when he felt the pulse he thought that the motion was that of the vital spirit proceeding from the heart through the body. Therefore he regarded the pulse as an important indication of the condition and prospects of the patient. Though this theory of its nature had no basis in fact his observations were often exact and we can agree with many of his results. He gave all the consideration he could to the pulse and the physicians, his disciples, for many succeeding centuries estimated its qualities and drew conclusions from them. Galen felt but did not count the pulse.

A dialogue on statical experiments in the writings of Bishop Nicholas de Cusa, cardinal-priest of St Peter ad Vincula, who was born in Germany in 1401 and died in 1464, contains the earliest mention of counting the pulse, though the counting was not of the kind we use. The Cardinal was a mathematician with a commendable taste for weighing and measuring. The dialogue is between an orator and a common person. The uneducated person says:[5] "Do you not think that if you were to allow water to flow out of the narrow aperture of a water-clock into a basin while you counted an hundred beats of the pulse of a healthy youth and were to do the same with a sick youth that different weights of water would fall through?" The orator has no doubt of it and the uneducated man goes on: "The weight therefore of water that flows out in relation to the differences of pulses in the youth, in the old man, in the healthy, and the sick ought necessarily to lead to a truer knowledge of the disease, one weight being proper to one infirmity and another weight to another." Everyone who has read at all in Demosthenes will remember the clepsydra or water-clock which marked the length of time for which he was to speak and which was stopped in its running while documents were being read. Galen in the fifth chapter of his book, "De cujusque animi peccatorum cognitione atque medela," gives a full account of the clepsydra and how to make, graduate, and use it. The glass vessel used at present in the operating theatre for irrigating parts of the body during surgical operations is a contrivance closely resembling a water-clock.

Cardinal de Cusa's works were printed at Bâle in 1565. On Nov. 5th, 1581, Galileo, afterwards so famous as an astronomer, entered at the University of Pisa as a student of medicine. His father became rather anxious about his progress, for he spent much time on mathematical studies which took him away from medicine. The wasted time of Galileo led to great results in astronomy just as the time which was taken from medicine by three students of this school, Thomas Young, Robert Bridges, and Edward Granville Browne, led to the undulatory theory of light, to the elucidation of hieroglyphics, to fine verse and to profound Persian scholarship. In Galileo's time as at the present day the greatest ornament of Pisa was its noble cathedral with the graceful leaning tower near one end and the beautiful baptistery standing a little way from the other. Engravings and photographs cannot give the wonderful combination of the effects of colour and form which its exterior presents. In the interior the lofty columns and round arches of its nave and its graceful triforium are no less admirable. It is pleasant to connect so glorious a building with the art of medicine. Galileo watched the swing of the great lamp of the cathedral[6] and noticed, as he thought, that its vibrations, whether great or small, were at equal intervals. He tested this by his own pulse, using it as a measure of time, and was thus led to the discovery of the isochronism of the pendulum. This discovery led to the construction and use of an instrument, long since forgotten, called a "pulsilogy." Sanctorius, a professor of medicine at Padua, claims it as his invention in his "Methodi vitandorum errorum omnium qui in arte medica contingunt,"[7] published at Venice in 1603, and gives a fuller account of it with a figure in his commentary on Avicenna, published at Venice in 1626.[8] The pulsilogy consisted of a scale of inches and of a cord with a moveable weight marked with a transverse line. The number of beats of the pulse corresponding to a given length was calculated by direct experiment, depending on the then recently established doctrine of the isochronism of the pendulum. Thus Sanctorius would speak, not of a pulse of sixty, but of a pulse of so many inches.

[1] Original grant.

[2] Galen: De Pulsuum Differentiis, Lib. i., cap. 2.

[3] De Cognoscendis Curandisque Animi Morbis, cap. 8, Opera, Venice, 1556.

[4] De Prænot ad Posthumum, cap. 2. Ed. Kühn.

[5] D. Nicolai de Cusa cardinalis utriusque juris Doctoris in omnique Philosophia incomparabilis viri Opera. Basileæ, 1565, p. 173.

[6] Galileo: Discorsi e Dimonstrationi Matematiche, Bologna, 1655, p. 73.

[7] Lib. v., p. 169 *a* and *b*.

[8] Sanctorii Sanctorii Justinopolitani olim in Patavino Gymnasio Medicinæ theoricam ordinar. Primo loco profitentis Commentaria in primam Fen primi libri Canonis Avicennæ, pp. 21, 22.

Another century passed after the invention of his pulsilogy before the pulse came to be counted as we count it at the present day. Sir John Floyer, a most observing physician, also remembered for books on cold bathing and asthma, published in 1707 "The Physician's Pulse Watch." After a dedication to Queen Anne the preface gives an account of the author's invention. "I have for many years tried pulses by the minute on common watches and pendulum clocks when I was among my patients; after some time I met with the common sea minute glass, which I used for my cold bathing, and by that I made most of my experiments; but because that was not portable I caused a pulse-watch to be made which run sixty seconds, and placed it in a box to be more easily carried, and by this I now feel pulses." When you know that the grandfather of a member of the present staff of this hospital was born within ten years of the publication of Sir John Floyer's book you will realise how recent is the practice of counting the pulse by a second hand on a watch. I shall not trouble you with a history of the numerous instruments for registering the pulse. In "La Circulation et le Pouls" of Dr. Ozanam you will find a full discussion of sphygmographs up to 1836 and in the latest editions of physiological manuals a continuation to the present day. Such methods are of use for graphic purposes in the laboratory, but at the bedside the finger trained to a learned touch must be our instrument and is less liable to error than any mechanical contrivance yet invented.

You have already been taught how to feel the pulse so I will only remind you to exercise some care in finding the artery, to keep your finger upon it throughout your observation, to exercise equal pressure, to count the pulse more than once, to compress the artery lightly first and then more firmly, and finally to make a rule of feeling the pulse in both wrists for purpose of comparison. Study your own pulse and several normal pulses and consider their character as well as their rate. I have had printed a list of eight varieties of pulse which are to be observed in the medical wards this day and which you can go and feel at any proper time.

Slow: Seaman, aged thirty-one years. Luke: 10. (28 beats in a minute.)
Fast: Girl, aged sixteen years. Faith: 2. (120 beats in a minute.)
Feeble: Boy, aged ten years. Mark: 15. Boy, aged eleven years. Mark: 14. Man, aged forty-three years. Mark: 17.
Dicrotic (at times): Man, aged forty-three years (with enteric fever). Rahere: 4.
Of unequal beat: Boy, aged fourteen years (with mitral regurgitation). Mark: 16.
Of aortic regurgitation (water-hammer pulse): Man, aged fifty-four years. Matthew: 18.
Artery hard: Man, aged forty-eight years (gout). Mark: 18.
High tension: Man, aged fifty-two years (renal disease). Luke: 24.

The slow pulse of 28 is remarkably distinct and there do not seem to me to be any beats which do not reach the wrist as there sometimes are in such slow pulses. You may easily find many other examples of swift pulse besides the girl aged sixteen in the list. Look at the temperature charts over the beds and satisfy yourselves that a raised temperature is accompanied by a rapid pulse. Two of the feeble pulses are in boys recovering from acute illnesses, and the third is a result of long-continuing wasting disease. Make yourselves familiar with the dicrotism so frequent in the pulse of enteric fever, with the inequality of beat of the pulse of mitral regurgitation and with the peculiar shock of the pulse of aortic regurgitation. You may, I think, satisfy yourselves that the artery itself is hard in the man with gout. This is an observation in which a mistake is often made. I have many times found by dissecting it out post mortem that a hardness which seemed a property of the wall of the artery was really a result of the blood stream, the artery being free from thickening or calcification.

Take early opportunities of observing in the wards some other pulses of which there do not chance to be typical examples to-day—the pulse easily altered by slight excitement so often to be seen in exophthalmic goitre and in the people we call nervous; the pulse of unequal groups common in tuberculous meningitis; the bounding pulse of pneumonia and that of some cases of cerebral hæmorrhage; the pulse influenced from day to day by drugs such as digitalis. Of all these you will soon come across examples. Note the difficulty of being quite sure that the pulse has stopped when you have been feeling it for a period of time with increasing difficulty. However marked the characteristics of the pulse may be do not hasten to a diagnosis from that observation alone. The character of the pulse will sometimes tell you whether an abdominal pain is due to the recent perforation of a gastric ulcer or to a general peritonitis. Its regularity and normal beat will tell you in a few rare cases that a cardiac murmur is produced at the pulmonary and not at the aortic valves.

The state of the pulse is an important aid to diagnosis in all cases; it is the guide to immediate treatment in some; and in many others it is one of the chief prognostic indications. Dr. Ewart in his interesting and useful book, "How to Feel the Pulse and What to Feel in It," mentions seventy-two terms formerly applied to as many pulses. This method of elaborate nomenclature of the pulse begins with Galen and may be dismissed with the remark of Heberden: "Such minute distinctions of the several pulses, if they do not exist chiefly in the imagination, at least have little place in the knowledge and cure of diseases."[9] My advice to you is not so much to ask what a variety of pulse which you may feel is called as what does it mean and what is its relation to the case in which you discover it. It was a conversation on the pulse with Dr. William Ogle, a very learned physician and editor of Aristotle, which suggested to me the subject of this lecture. It is not intended to be exhaustive or to do more than make the beginning of the study of the pulse interesting to you. I may fitly end it with Galen's first words in his short treatise for students: "Ὅσα τοῖς εἰσαγομένοις, χρήσιμον ἐπίστασθαι περὶ σφυγμῶν, ἐνταῦθα λεχθήσεται (What is most useful to beginners to know about the pulse I have set forth here).

THE OUTBREAK OF ENTERIC FEVER AT CLIFTON.[1]

BY D. S. DAVIES, M.D. LOND., D.P.H. CANTAB.,
MEDICAL OFFICER OF HEALTH OF BRISTOL.

[THE epidemic of enteric fever at Clifton caused by sewage contamination of milk and already mentioned in the columns of THE LANCET forms the subject of a valuable and exhaustive report by Dr. D. S. Davies, medical officer of health of Bristol. The report, moreover, contains a chart (reproduced herewith in fac-simile) showing the occurrence of cases on the various milk rounds. In the report the infected supply is referred to as X and names are for obvious reasons omitted. Dr. Davies says:]

It is a matter for congratulation that in my first report to the new Health Committee I am able to deal with a rapidly declining epidemic the exciting cause of which has been ascertained and removed. Thus during the past three weeks the notification returns for Clifton have fallen from 100 to 60 and again to 19. As the third week from the stoppage of the infected supply is now just completed it is reasonable to forecast that the diminution will be fully maintained. In my report to the Sanitary Committee on Oct. 28th I explained the nature of the epidemic and showed how the facts already ascertained, hurriedly but with minute care, pointed to a source of contamination from one particular farm. Further investigation has proved our original conclusions to be absolutely correct and I have nothing to withdraw from my report of that date. But the accumulation of evidence has thrown much fresh light on some points which were then obscure, and I will endeavour to explain as shortly as possible the main channels of diffusion of the infected milk. One farm only (X) supplied infected milk, but it found its way on to three milkman's rounds in the following manner:—

1. The milk from the infected farm X was consigned for delivery to the distributor in Bristol, by whose man it was met at the Suspension Bridge and distributed direct from the churn to customers without going to any local dairy. Any milk not used on the round was returned, however, to the branch dairy and sold to casual customers. This supply served during the holiday month of August and up to Sept. 26th, when the schools reopened, two districts—(*a*) the high level district, bounded on the east by College-road and on the south by Gloucester-road, and (*b*) the low level district, extending from the Mall to Grenville-place, Cumberland Basin, on the south, and as far as Bellevue on the east. On the re-assembling of the schools at the end of September, however, this supply was confined to the high level district. Some of the earliest cases developing at the beginning of October showed themselves on the low level

[9] Remarks on the Pulse, 1768.

[1] Abstract of a paper read before the Royal Medical and Chirurgical Society on Nov. 23rd, 1897.

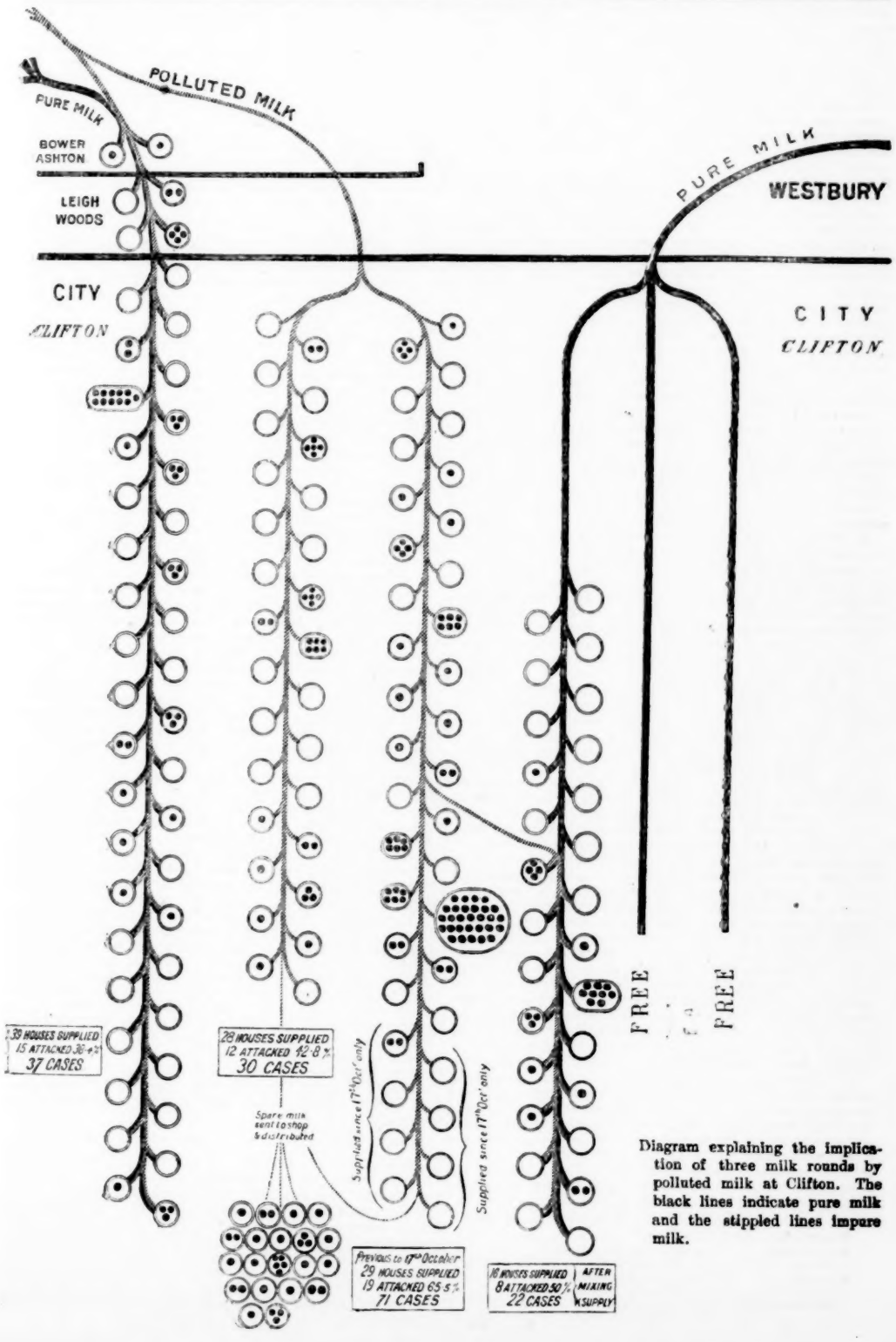

Diagram explaining the implication of three milk rounds by polluted milk at Clifton. The black lines indicate pure milk and the stippled lines impure milk.

round, and many early cases also occurred on the high level round, but the incidence here was mainly in the second week of October. On the high level round 29 houses were supplied, 19 were attacked, and 71 cases resulted—a ratio of attacks to houses of 65·5 per cent. On the low level round 28 houses were supplied, 12 were attacked and 30 cases resulted—a ratio of 42·8 per cent. Taken together, 57 houses were supplied, 31 were attacked, and 104 cases resulted—a ratio of 54·8 per cent., or about two cases per house.

2. A milkman started with a pure milk-supply from Ashton, but at Bower Ashton he received a supplementary supply from X (the farm alluded to in the first section) consigned to Clifton, after receiving which he supplied milk to Bower Ashton, two cases of typhoid fever resulting, then proceeding to Leigh Woods, where six more cases appeared in two houses supplied, and then entered Clifton. In the course of his Clifton round the following resulted: 39 houses were supplied, 15 were attacked; ratio of attacks to houses 38·4 per cent.; the total number of cases was 37, or not quite one case per house. In this case a large quantity of good milk was polluted with a comparatively small quantity of infected milk and it will be noted that the attack rate upon houses supplied was smaller and the number of cases per house less. In one school, however, no fewer than 13 cases resulted and two were fatal. I may add that this purveyor had no right to purchase the X milk from the man who was forbiden to sell it. (The report then stated that very great difficulty arose in consequence of statements made to the medical officers' department which failed to give any explanation of the Ashton and Leigh Woods cases. The facts were discovered by a house-to-house visitation and subsequently the whole transaction was explained.)

3. The third and last implicated supply came originally from a farm at Westbury, to which no suspicion attaches, and this furnishes one of the most interesting features of the whole epidemic. The method of procedure adopted in working out the epidemic is this. As soon as suspicion attaches to a farm it is inspected, lists of the customers on the various rounds are obtained, the milkmen on implicated rounds are called to give evidence, the routes of each round are mapped out, and the lists and maps compared with the fever case-books compiled from the inquiries on notified cases. The milk from the Westbury farm is brought into Bristol on three rounds. Two of these rounds were found to be entirely innocent of cases, and the third round was (with the exception of the single case of a servant in one house, situated near the dairy where the returned infected milk went, and from which occasional supplies were possibly obtained) also quite innocent of cases up to a certain point, but beyond this point cases began to occur with marked frequency. These facts went a long way towards exonerating the farm itself as a source of infection. On comparing the mapped-out routes it was observed that at the very corner where this change from freedom to infection occurred this milk round crossed that of the X supply (previously referred to), and we were prepared to receive the admission that at this point, on occasions when the milkman found the demands of one large college house had shortened his supply, he was in the habit of buying a supplementary supply from the other who carried the infected X milk. After this cases commenced at the very next house supplied and recurred with considerable frequency throughout the entire route. The following are the results obtained: Before adding the infected milk 11 houses were supplied, 1 house was attacked, or 9 per cent.; 1 case resulted. After adding the infected milk 16 houses were supplied, 8 were attacked, or 50 per cent.; 22 cases resulted.

The explanation of this implication, which for some time seemed obscure, settles the question of causation and may silence some critics who, failing to trace from their imperfect knowledge any possible channel of infection, have traversed my statements while they have uniformly neglected the courtesy of asking me if I have any explanation. All the persons concerned have admitted before witnesses the accuracy of the facts I here adduce. In the aggregate up to Sunday, Nov. 14th, 1897, we find:—

Total houses attacked.	Houses.	Cases.
Houses attacked on regular rounds	55	163
Houses attacked obtaining casual supplies from the branch to which infected milk was returned ...	20	32
Houses attacked obtaining milk from dairymen not known to obtain infected supplies (no multiple cases in any such house)	13	13
	88	208

I am thus able to account satisfactorily for 195 out of a total of 208 or 93·7 per cent. of the total cases; and when it is remembered that the infected milk was supplied to one retail shop round which a cluster of cases has occurred and to one refreshment room, and when the chances of infection by visiting are taken into account, the percentage of failure, which I hope further inquiry will reduce, is very small. The number of multiple attacks in houses upon the infected supplies is very notable. The largest number in any one house (a schoolhouse) was 29; in others 11, 9, 7, 6, 6, 6, 5, 5, 5, 4, 4, 4, 3, 3, 3, 3, 3, 3, 3, 3 cases occurred, and several double cases in other houses. No multiple cases occurred in any house to which an infected supply cannot be traced.

[Dr. Davies here mentioned that at Clifton College, containing large numbers of boys at susceptible ages, 5 "houses" only were attacked, every one of which received, mixed or unmixed, the infected milk. Each circumstance of the attacks was satisfactorily explained, and it became possible to advise with confidence that the work of the school should continue without interruption and without fear of further infection. Several instances of infection under special conditions were also quoted. In one case a lady attacked was the only one in the house who drank unboiled milk. In another case a child of nine years of age on a day's visit to Clifton drank some of the unboiled infected milk at a restaurant and developed enteric fever at the end of a week (the incubation period in milk typhoid may be as short as five days). The infected milk was supplied to an institution containing sixty-three persons, not one of whom was attacked, in consequence, no doubt, of the milk being invariably scalded in a steam-jacketed cylinder. Dr. Davies's report then continued:]

I have already pointed out to the Sanitary Committee the conditions found to exist at the farm. I now lay before the committee the city analyst's report, from which I quote: "Oct. 30th, 1897. X Farm Pump and Stream above X Farm.—There is a remarkable closeness of agreement between these waters which suggests that the pump is not supplied from a spring but from the stream. Your inspection of the locality will have determined whether this is possible. The analytical results prove these samples to be highly charged with putrescent organic matter, whilst a direct microscopic examination, without the assistance of culture processes, shows them to be swarming with micro-organisms in great variety. Here also it is not possible to state with certainty whether part of the organic filth contained in these waters is or is not of sewage origin. From a careful consideration of the data and from a knowledge of the water of the locality I think there are distinct indications of sewage pollution, but the evidence, as is generally the case with stream waters, is not conclusive. However this may be I have no hesitation in saying that none of these waters are fit to be used for dairy work. I have also examined samples of milk, one received from X farm on 26th inst., and one on the 28th inst. Though in some respects these samples differ from average milk there is nothing in the results to justify the assumption that water has been added to either."

[The "stream above X farm" is Ashton Brook, which flows through Long Ashton, a village in Somersetshire, extending for a mile or more along the main road from Bristol to Weston. The brook is utilised as the main sewer of the village. Dr. Davies found that the sewage from fifty-nine houses is discharged into it and that it then flows directly through X farm. He adds that it appears to be the obvious duty of the rural district council to prevent the continuance of this pollution of the brook, the dangerous nature of which had been amply shown. The Health Committee of the Bristol Corporation resolved to pay for the milk destroyed to prevent infection and awarded Dr. Davies and his staff a cordial vote of thanks for the steps they had taken.]

HUNTINGDON COUNTY HOSPITAL.—This hospital has lately been thoroughly renovated and so far enlarged as to provide forty-two beds. Mr. Keith D. Young was consulted by the Board of Management and his suggestions have been carried out under the direction of Mr. E. Borissow, architect, of Huntingdon. A new operating theatre has been built, floored with terrazzo and lined throughout with opalite. A mortuary chapel, the gift of one of the Governors, is being built. The President of the hospital is the Earl of Sandwich, and the Honorary Secretary is the Archdeacon of Huntingdon.

REMARKS

ON THE TREATMENT OF ACROMEGALY BY THE EXTRACTS OF THYROID AND PITUITARY GLANDS SIMULTANEOUSLY.

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IN THE LANCET of April 25th, 1896, p. 1137, I recorded the unsuccessful treatment of a case of acromegaly by pituitary gland substance. In some remarks which followed on the relation between the changes observed in the pituitary body (generally simple enlargement, cystic change, or more rarely sarcoma) and this disease it was pointed out that the internal secretion of the gland might theoretically be modified in three ways—viz., (*a*) by suppression, (*b*) by hypersecretion, or (*c*) by perversion of its composition. Suppression of secretion alone was not likely to account for the disease inasmuch as on that hypothesis the administration of pituitary extract should relieve the symptoms, whereas this therapeutic effect had not been definitely established. Hypersecretion again was improbable since the administration of the pituitary extract had not been shown to accentuate the symptoms. With regard to the possibility that the nature of the secretion was altered and that this perversion of its composition accounted for the changes characteristic of acromegaly the following suggestion was put forward: "That owing to alteration in the secretion of the pituitary the equilibrium between it and the other internal secretions are disturbed. Possibly some toxic body ..... might be thus produced. The thyroid and pituitary glands have been thought to be compensatory (to each other); recently, however, their extracts have been shown to be physiologically antagonistic.[1] Superficially there are some resemblances between acromegaly and myxœdema and it might be thought that acromegaly is the result of a disturbance of the chemico-physiological equilibrium maintained in health by the normal activity of these two glands.[2] Such a consideration suggests that acromegaly might be benefited by giving pituitary and thyroid extracts at the same time."

I have since the publication of this case in THE LANCET been able to test this theoretical consideration as to treatment on two cases of acromegaly. In both cases the pressing symptom of which the patient complained—headache—was relieved by taking twice a day five grain tabloids of thyroid and of pituitary extract, ten grains of each being taken daily. It is to be added that the skeletal changes remained unaffected and that the amenorrhœa from which both patients had suffered since the onset remained.

CASE 1.—This patient was the woman described in THE LANCET in the communication already referred to. She was thirty-five years of age and had been ailing since 1891, but definite symptoms of acromegaly only dated from 1894, when her hands and feet began to enlarge and her sight began to fail. This was a well-marked case of the disease and the patient had optic atrophy and transient glycosuria. After being treated in the hospital with pituitary extract in February, 1896, she went home and was under the care of Dr. Hollis, of Wellingborough; towards the end of last year, (1896) headache became so intense that she was anxious to undergo any operation that would relieve it. Accordingly she came under my care again at St. George's Hospital. After consultation with my colleague, Mr. Sheild, who had seen her when previously in the hospital, it was decided that no attempt to remove the pituitary body, which from the primary atrophy of the optic nerves was probably much enlarged, was justifiable, but that if the pain continued the skull might be trephined and the subdural space opened with the object of relieving intracranial pressure. She was given the combined thyroid and pituitary extracts and she gradually lost the headache and was able to get up. Her improvement being sustained she went back to her home in March, 1897, with directions to continue the treatment. This advice, however, probably from the extra expense entailed, she did not follow. In June she began to get epileptiform fits with loss of consciousness, and gradually getting weaker she died early on Aug 16th, on which day Dr. Hollis and I examined her body—fourteen hours after death. The results of this examination were communicated to the Pathological Society of London at the meeting on Nov. 2nd 1897, but it may be stated here that the pituitary body was greatly enlarged by a soft white growth which invaded the right optic thalamus and microscopically had the structure of a medium sized round celled sarcoma. The thymus was persistent and microscopically showed marked enlargement of the concentric corpuscles of Hassall. The thyroid body was healthy both to the naked eye and microscopically.

This case belongs to the class of acute acromegaly, of which Maximilian Sternberg[3] has collected six examples all accompanied by sarcoma of the pituitary body and running their clinical course rapidly in from three to four years.

CASE 2.—A woman, aged twenty-six years, with symptoms of acromegaly for two and a half years was shown at a meeting of the Medical Society of London on April 12th, 1897. This was a less advanced case than the previous one, presenting no changes in the optic nerves. When she came under observation in October, 1896, she had had severe headache for six weeks. She was taken into the hospital and treated with the combined extracts of thyroid and pituitary glands. She soon lost the headache and subsequently attended as an out-patient until July, 1897, the same treatment being continued. As there was no return of the headache when she was an out-patient its disappearance can hardly be explained as being merely due to rest and improved physical conditions.

In these two cases amelioration of one symptom and that an urgent one—headache—followed the combined administration of thyroid and pituitary gland extracts but the structural changes remained unaltered. The results are too scanty to establish any reliable conclusion as to the value of the treatment but they justify a more extended trial and it is with the object if possible of inducing others who have cases of acromegaly under their care to try this form of treatment that this note is published. One point that specially requires investigation is whether any good effect that may result from the administration of the combined extracts is solely due to the contained thyroid extract or whether the two combined extracts have more effect than the administration of thyroid alone. Pituitary extract has been generally unsuccessful in the treatment of acromegaly while the treatment with thyroid extract has given variable results. Benson,[4] Bruns, and Bramwell[5] record improvement, Bramwell and Ransom[6] report no effect, and Murray[7] mentions temporary improvement which disappeared while the treatment was continued. Under these circumstances it has been thought that any beneficial effects it may have are of a general nature and not due to any specific action on the morbid processes at work in acromegaly. But since thyroid extract has been found to relieve the headache of acromegaly,[8] it is possible that the apparent success of the administration of the combined

[1] Schäfer and Oliver (Journal of Physiology, vol. xviii., p. 277) found that the effect of pituitary extract on blood-pressure was to raise it while the effect of thyroid extract was the reverse. Their "observations would appear to indicate that the opinion which has been freely expressed that the pituitary and thyroid are vicarious in function and which has been based upon the apparent enlargement of the pituitary after thyroidectomy is probably incorrect, seeing that the extracts of the two glands produce entirely contrary physiological effects." On the other hand, it does not follow that because the effects on blood-pressure of these extracts are antagonistic their other physiological actions necessarily follow suit. Dr. Abrahams has kindly called my attention to an interesting paper by Dr. A. Schiff in the Wiener Klinische Wochenschrift of March 25th, 1897, on the influence of thyroid and pituitary glands on metabolism. After referring to the clinical relations and resemblances existing between acromegaly and myxœdema he goes fully into the effects of thyroid and pituitary extracts on metabolism and shows that they resemble each other in increasing the excretion of phosphoric acid.

[2] In connection with this speculation reference may be made to a valuable paper on Acromegaly with Goitre and Exophthalmic Goitre, by Dr. G. R. Murray, in the Edinburgh Medical Journal, February, 1897. He quotes five cases in which exophthalmic goitre and acromegaly have existed together. While inclining to the view that acromegaly is in some way dependent on alteration in the function of the pituitary gland, he says that the coexistence of acromegaly and exophthalmic goitre suggests that there may be some common cause which brings about similar changes in both thyroid and pituitary glands, each in turn producing its attendant symptoms.

[3] Sternberg, Die Akromegalie, p. 67, 1897.
[4] Brit. Med. Jour., 1895, vol. ii., p. 949.
[5] Quoted by Murray.
[6] Brit. Med. Jour., vol. i., p. 129. [7] Ibid., p. 293.
[8] Bruns: Neurologisches Centralblatt, December, 1895 (quoted in epitome, Brit. Med. Jour., 1896, vol. i., No. 51).

extracts was in reality due to the thyroid extract and not to the combination. In this connexion it would be interesting to ascertain what is the effect of thyroid extract on headache other than that of acromegaly; from the fact that it lowers external pressure it might be expected to relieve some forms of headache. In the Report of the Clinical Society of London on Myxœdema[9] occipital headache was present in one-fifth of the cases. On the other hand, excessive doses of the extract give rise among other symptoms to headache.[10]

At the present time the relation of changes in the pituitary gland to acromegaly cannot be considered as entirely understood or definitely settled; it is true that the change in the gland is generally regarded as primary. But it may be that they are both the manifestations of some primary change elsewhere,[11] or, as the occasional association of acromegaly with some or in very rare cases with all the symptoms of exophthalmic goitre on the one hand and the superficial resemblance to myxœdema on the other suggests, the symptoms of the disease may be due to some disturbance of a theoretical equilibrium which in health is maintained between the internal secretions of the thyroid and pituitary glands. In this state of the question the results of more extended therapeutical trial of thyroid extract both alone and in combination with pituitary extract might be of considerable value.

THE LUNGS AS DUST EJECTORS, VIEWED MAINLY FROM A PATHOLOGICAL STANDPOINT.

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THE respiratory functions of the human lungs are obvious and any interference with their efficiency in this regard is quickly made known both to the physician and to his patient by the urgency of the symptoms it engenders. It is scarcely surprising to find that an almost equally important service which these organs render our bodies unceasingly, yet unobtrusively, should be relegated by physiologists "to a back seat." I refer to their function as dust ejectors. Dr. E. H. Greenhow[1] was one of the first observers who drew attention to the changes which take place in the lungs of those much exposed to a dusty atmosphere. Subsequently Merkel,[2] Alexander Ross,[3] Mayet,[4] and others studied the subject. The present paper is not, however, written to confirm a proposition already well established that certain dusty occupations will lead to lung disease among the work-people but rather to show that we are all exposed in a modified degree to similar risks from the daily inhalation of dust and that certain well-marked pathological changes in the lungs and elsewhere may not infrequently be traced to a breakdown in the dust-expelling function of the lungs even among those whose surroundings are not excessively dusty.

We are taught by chemists to regard the air as a mixture of certain gases holding a little watery vapour in suspension. Yet I venture to assert that the air my readers are now breathing, the air I have breathed by day and by night for upwards of half a century, is something essentially different from this purely gaseous mixture. Some few years ago I read a paper on what was called "Motes from a Sunbeam." It was, however, a chemico-physical paper treating of air-dust and I should not have here alluded to it had it not been for some experiments in connexion therewith. Clean glass slides such as those used by microscopists were smeared with glycerine and exposed at different elevations to the open air for an hour or more. They were then examined both by the naked eye and microscopically. It was observable that the deposit—for there always was a deposit visible to the eye—varied much with the force and dryness of the wind and with the quarter whence it blew. Sometimes the dust consisted largely of deliquescent crystals of sea-salt brought from the English Channel a couple of miles away if the wind was a strong south-westerly gale. At others siliceous and calcareous particles, or hair, vegetable fibres, and such-like material, were visibly sticking to the glass. It is not, however, with these visible particles suspended for a time in the air that I have now to deal. It is with those minute orts, those fragments of a decaying world, whose very minuteness and want of density if once they are lifted by the wind ensure them a prolonged flotation in the atmosphere. Besides the naked-eye appearances of the slides above described the microscope revealed many other fragments, both organic and inorganic, which it is not necessary to recapitulate. These experiments were undertaken before Koch had shown how we can analyse by cultivations the various aerial bacteria. Where I, however, found visible solid particles in the air at heights of forty and fifty feet above the surface of the ground it may be assumed that thousands of bacilli escaped my notice because their presence was unlooked for. The air we breathe contains, then, besides the gaseous and watery components above mentioned, a variable amount of solid matter suspended in it, partly organic and partly inorganic. Of the organic particles, again, some are living and others are dead. I propose, first, to consider briefly the behaviour of motes whilst suspended in the air and subsequently to show what becomes of them when they have fallen upon the mucous membrane of a bronchial tube or have obtained ingress to the inner recesses of the lungs themselves.

The rate of subsidence of solid particles in still air depends largely upon their possession in a variable degree of three attributes—size, shape, and density. Organic motes are as a rule less dense than those of inorganic origin and consequently the latter sink for the most part more quickly through the air than the others do. The subsidence of motes conveyed onwards by an air current, although modified in special cases by the direction and force of the current, is still mainly controlled by gravitation. In a dusty atmosphere the subsidence of motes is interfered with and it may be indefinitely delayed by wind-gusts. The streams and eddies so produced have a tendency to raise the aerial flotsam to a higher level from the ground than that previously occupied by it. It is the disturbance of organic dust whereby the number of motes in a given volume of air may be temporarily increased that causes a draught in a crowded and ill-ventilated room to be specially dangerous. Along the respiratory tract the subsidence of aerial motes is regulated by similar laws to those in force outside the body. We may rightly conclude that the heavier particles of the road-drift, for example, are when inspired mainly deposited upon the mucosa of the inferior meatus narium of the pedestrian if he is a nose breather. We can obtain ample evidence of this fact as a rule when we clear the nose on a white handkerchief after a dusty walk. This result is probably due rather to the operation of certain physical laws regulating the subsidence of suspended air-motes than it is to any anatomical peculiarities of the nasal cavities as some will have us believe. The air which passes into and out of our lungs under ordinary circumstances does not mingle except by slow diffusion with that filling the upper nares where the complicated convolutions of the olfactory mucosa are found. It follows that the majority of the air-motes will pass along the inferior meatus. We cannot actually see them performing their adventurous voyage through this possibly somewhat constricted passage, but we have indirect anatomical evidence that they really do so. I need only bring to mind that the inferior meatus of the nose is lined with ciliated epithelium in common with the larger air-tubes, whilst this is not the case as regards the olfactory cavities and the pulmonary alveoli.[5] The velocity of the air-current along the bronchi during inspiration must be constantly changing and in the infundibula it will either cease or become greatly diminished. Despite the respiratory movements of the chest and the variable currents they necessarily induce the smallest and lightest motes will have a more favourable chance of passing deeply into the bronchial ramifications along with the inspired air than others. As the smallest and lightest motes are generally both organic

[9] Transactions of the Clinical Society, supplement to vol. xxi., p. 29.
[10] Osler: Principles and Practice of Medicine, 1895, p. 751.
[11] Compare remarks by Professor Panas of Paris reported in Brit. Med. Jour., 1895, vol. ii., p. 950.
[1] Transactions of the Pathological Society of London and THE LANCET, 1859-72.
[2] Deutsches Archiv für Klinische Medicin, Band viii. und ix.
[3] Dublin Quarterly Journal of Medical Science, February, 1871.
[4] Société des Sciences Médicales, Lyon Médical, 86.

[5] In accordance with the observations of Todd and Bowman and confirmed by Kölliker and other writers. Schech, however, gives the opposite view—i.e., ciliated epithelium in the olfactory region. (Diseases of Mouth, 1886, p. 204.) My own observations seem to agree with those of the older writers.

and alive these microbes may occasionally find their way into the alveoli even when other motes are excluded.

When a mote falls upon the mucous membrane of the respiratory tract its subsequent history depends much on its chemical constitution, size, and shape. Metallic and mineral dust as met with in certain dusty occupations include for the most part a large number of sharp-edged or pointed particles admirably adapted to penetrate the mucosa of the tubes. If, for instance, we examine fine iron or copper filings under a microscope many of the minute particles of metal will be found to have assumed the shape of spiral ribbons, some of which are more closely twisted than are others. Yet all are so fashioned as to easily cut into the pulmonary tissues. Coal dust, although composed mainly of smaller particles than the metal filings, is largely made up of pieces with peg-shaped points and cutting edges. Again, mother-of-pearl dust[6] may be almost said to typify a truly penetrative powder, consisting as it does almost entirely of delicate needle-shaped spicules of lime carbonate on some organic, possibly chondrin, base. Finely pulverised flints or other stones, as met with in road drift, in stone-masons' sheds and elsewhere, doubtless possess in many cases considerable cutting capabilities. On the other hand, a very large majority of the air-motes of every-day life are harmless as regards their penetrative ability. These are at once moved onwards, whenever they have fallen on the viscid surface of a bronchial tube, and are eventually ejected into the pharynx by the aid of cilia, supplemented by occasional and forcible expiratory efforts. Having arrived so far on their return journey the motes mixed with mucus are either swallowed or expectorated at the discretion of their possessor. The above sketch represents with reasonable accuracy the progress within the lungs of the myriads of air-motes which every healthy person must have inhaled during an average lifetime. Occasionally it happens that tubercle or other noxious bacilli are introduced together with harmless motes to the bronchial mucosa. So long as the epithelial surface is intact these organisms are swept outwards again by the cilia and are not allowed to obtain a permanent lodgement. If, however, they have succeeded in gaining the infundibula they must be removed with difficulty owing to both the physical and anatomical conditions of their surroundings. This is doubtless one of the modes in which the lungs can become infected by septic bacteria.

The smaller bronchi are proportionally more muscular and contractile than the larger tubes. When one of the former is contracted its lumen is almost obliterated by infoldings of the mucosa. A sudden change of calibre is often rendered necessary to prevent the ingress of solid particles to the alveoli. If, however, a sharply-edged metallic or mineral mote is caught by the contracting tube it is probably forced by the movements of the muscular ring into the parenchyma of the lung. The intrusion of such particles is admittedly well borne by the pulmonary tissues, and it only at times leads to serious and progressive complications. These, when they exist, take the form of patches of sclerosed tissue, each surrounding a bronchiole (Osler). Besides these lesions the arteries are often affected with endarteritis, and the embedded particle is usually surrounded with a zone of pigmented tissue (Woodhead). These appearances are similar, whatever the nature of the inorganic dust inhaled (Zenker). Exclusive of the arterial disease and the pigmentation, to both of which I shall refer subsequently, there are two chief facts regarding the behaviour of the pulmonary tissues when they are invaded by mineral or metallic fragments. First, they bear the intrusion well as a rule; and, secondly, whatever the metal or mineral of which the motes consist, the resultant sclerosis if it takes place is practically identical. These facts undoubtedly point to the pulmonary lesion as the result of a third factor, whose occasional ingress along with the inorganic particles above mentioned is the true cause of the sclerosis. If we consider the possibilities there must be of infection when hundreds of minute pinpoints are being forced in many different directions through the lungs, as is necessarily the case in many instances of pneumokoniosis, we ought not to feel surprise that infective germs are sometimes introduced with them. That this is the true interpretation of the sclerosis, the pigmentation, and the arterial disease will be disclosed in the latter part of this paper.

[6] See a paper by Greenhow: Transactions of the Pathological Society of London, vol. xxi., Organs of Respiration; "Specimen of a Pearl-shell Cutter's Lung."

From what has been already stated we may consider that the lungs have a strong outer line of defence against invasion by air-dust in the branching air-tubes and their moistened lining. When, however, certain mineral or metallic particles are precipitated upon the pulmonary mucosa they are frequently forced into the lungs themselves by the efforts made to dislodge them. Owing to the comparative scarcity of these motes in the dust of ordinary life this accident rarely happens even to dwellers in towns. It is otherwise with small amorphous particles, as smoke-smuts, broken epithelial scales, or the hundred and one oddities which form the air-dust of civilised life. The lungs will grievously fail in their dust-ejecting function when such material is left to choke the finer bronchi. As a rule, I believe, this dust when deposited in the lungs is quickly and thoroughly removed. I even doubt whether many hours' exposure to a smoke-laden London fog will leave an atom of carbon permanently fixed within the meshes of the pulmonary tissues of a healthy man. Some pathologists have assumed that the pigmentation of town-dwellers' lungs is due to the inhalation of an excessively smoky atmosphere. The discoloration may be explained more truthfully otherwise. That the "black-lung" of coal miners[7] is due to the invasion of the pulmonary parenchyma by coal dust is unquestionable; but this intrusion is largely due, as previously pointed out, to the shape of coal particles. Smoke carbon is quite incapable of cutting its way into the mucosa as some coal dust probably can.

When dust has by any means evaded the natural safeguards to its promiscuous introduction within the tissues of the body it loses its individuality if I may so phrase it and its further movements are somewhat difficult to trace. This difficulty is rendered all the greater among the higher vertebrates because, owing to the efficiency of the defences, the intrusion of even the tiniest bacterium is probably challenged and for the most part prevented. Among the Aves the respiratory movements of the lungs are more restricted than they are in mammals, and these organs in birds communicate freely with large air sacs in different parts of the body. The safeguards to prevent the introduction of atmospheric dust or other forms of contamination into this complex respiratory system are apparently trivial and easily evaded—at all events, in some species. For instance, it is not unusual to find entozoa (monostoma mutabile, &c.) in the subocular air cell of the coot, water-hen, goose, and other water-birds.[8] When comparatively large creatures are permitted to live with impunity it is reasonable to suppose that smaller organisms are not rejected. These avian receptacles, notwithstanding their close relationship in many cases to the innermost cavities of the skeleton, must occasionally admit many air-motes. It is difficult to understand how any of the dust when once it has been drawn into these sacs can get back to the open. At all events it seems probable that a far larger proportion of the total amount of captured particles will be retained in these extensive air-chambers of birds than in the lungs of mammals. From what we know of the behaviour of certain motes, as above stated, a percentage of the captured particles will sooner or later become involved in the highly vascular lining membrane and in this manner there will undoubtedly be a risk of blood contamination. When foreign particles get into our blood-vessels they are attacked and devoured, as is well known, by leucocytes. The necessity for depurative measures must be theoretically greater in birds than in mammals, and possibly it is more urgent in water-fowl than in other species of birds if my line of reasoning is sound. We ought therefore to expect in birds' blood a condition of physiological leucocytosis, and water-birds ought to possess this physiological attribute to a greater extent perhaps than land-birds.

In January, 1896, Mr. E Lewys Lloyd kindly undertook to count for me by means of a Thoma-Zeiss hæmocytometer the actual number of red and white corpuscles respectively in given volumes of blood taken from four different species

[7] Black-lung had been recognised as a common result of respiring air laden with carbon-motes many years before Greenhow published his observations. Dr. Gregory, Mr W. T. Cox, and Mr. Couch (Statistical Investigation into the Mortality of the Miners in the District of Lelant, 1859) severally concluded that the discoloration was due to carbon (British and Foreign Medico-Chirurgical Review, vol. ii., 1860, p. 53, and THE LANCET, May 1st, 1869, p. 604, for report of discussion on Greenhow's paper).

[8] Owen: Anatomy of Vertebrates, vol. ii., p. 217. See also paper read by Mr. McCallum before the British Association, 1857, on Hæmatozoon Infections of Birds.

of birds. The investigations were made in the laboratory at St. Bartholomew's Hospital and the birds selected were hens, pigeons, larks, and ducks. In describing these enumerations Mr. Lloyd fully upheld the high reputation he has as a painstaking and accurate observer and I here give the average proportions of white to red cells in each of the four species above mentioned as found by actual experiment: in hens the average proportion of white to red cells was 1 : 234, in pigeons nearly 1 : 114, in larks nearly 1 : 166, and in ducks 1 : 97. These results were obtained under identical conditions from several examinations of the blood of two healthy birds in each species. If we take the average proportion of white to the red corpuscles in man to be about 1 in 500 these averages for birds show that a leucocytosis existed in all the tested samples of avian blood; and, furthermore, of birds' blood the highest percentage of white corpuscles to the red existed in the duck, a water bird. These figures as far as they go confirm in a curious manner the suggestion that birds' blood by incurring greater risks of contamination from without owing to the conformation of the respiratory apparatus ought to be provided with a larger proportion of phagocytes than is man's blood for instance. Water birds, again, owing possibly to their dirty habits seem to incur greater risks than do land birds and against these dangers the duck at all events is sufficiently provided by a well-marked physiological leucocytosis.

Pigmentation is a common accompaniment of many chronic diseases of the lungs. It has been found, to take a few examples, not only in cases of anthracosis, but in stonemason's lung[9]; in the chronic congestion of mitral incompetency[10] and along with tropical abscess of the liver, as in the case hereafter mentioned. The colour of the pigment is usually black; it may, however, be brown, green, or yellow. I shall confine my remarks to the common black variety as the one generally met with even in cases where the rarer coloured pigments predominate. Under a high power the microscope resolves the pigment into minute granules. Many pathologists consider it to be composed of carbon. The transference by wandering cells of granules discharged from other cells or of matter to be converted into granules, "to organs which lead out of the body, where they may be put to secondary uses," appears specially to have been studied by Mr. H. M. Bernard, of the Natural History Museum, South Kensington.[11] Although in some metazoa, the crustacean aptus, for instance, the pigment granules of the eye are highly complex bodies, according to the same authority there is no doubt that these granules are mainly excrementitious and are discharged by the wandering cells as waste products. Guanin ($C_5H_5N_5O$) has been found in the granules of some animals. The pigmentary granules found in the lungs of townsmen are doubtless pathological in nature and composed entirely of excrementitious substances. In the following case, which I shall quote at some length, we have indirect evidence (1) that pigment granules were partially digested pus cocci, (2) that they were removed from the blood-vessels by leucocytes, and (3) that the pigment deposited on the middle and outer coats of the pulmonary artery and elsewhere was in every case conveyed in the manner above stated from the blood stream during life.

A soldier, aged twenty-five years, invalided two months previously from India for "ague," was admitted to the Sussex County Hospital in February, 1896. He was then suffering from obscure symptoms suggestive of hepatic abscess. An exploratory puncture, although it showed the presence of a few dead leucocytes, did not localise an abscess cavity so definitely as to justify further operative measures. About a fortnight afterwards he died. At the necropsy the right pulmonary artery was, as regards its larger and medium branches, distended with thrombi, causing typical wedge-shaped areas of consolidation. Some of the infarcts were breaking down centrally into pus. A large abscess, with almost cartilaginous walls, about the size of an orange, was found near to the anterior surface of the right lobe of the liver. No amœbæ coli were found in its contents under the microscope, only pus cells and broken-down tissue. Pus cocci were seen on a cover-glass preparation stained with methylene blue. On inoculating culture tubes with pus, cultures were obtained, but the nature of the organism was not determined. There was no evidence of dysentery in the four inches of sigmoid flexure examined. The above extracts are from the notes of Dr. Arthur Stanley. Upon subsequently making some sections from a thrombosed patch in the lung I noted smaller branches of the pulmonary artery mapped out by dense lines of black pigment, mostly in the outer coats of the vessels. At the angles formed by the insertion of a branch into a larger vessel the pigment was mostly in evidence. Owing to the thrombosed condition of the vessels it was easy to trace the branches of the pulmonary artery. In addition to the walls of the artery pigment was found to a small extent on the pavement cells lining the alveoli, and there were a few scattered granules elsewhere among the pulmonary tissues, possibly along lymph channels. The largest amount by far, however, was heaped around the blood-vessel in the manner described, some of the smaller vessels being apparently changed into blackened tubes. If the black patches were examined with a high power it was easy to resolve them into aggregations of granules for the most part contained within the nuclei of small oval cells, others, although preserving in the aggregate the oval shape, were undoubtedly without a cell-covering. Having stated so much as regards the topographical distribution of the pigment I shall next discuss its probable origin in the case under consideration.

In the above case we have proofs of the finding of pus cocci in the contents of the hepatic abscess shortly after death, an abscess from which we have clinical evidence that the patient had suffered for some long period. At the time of death and shortly before that event we have strong presumptive evidence in the thrombi within the walls of the pulmonary artery that some of these cocci, this living organic dust in other words, had made its way into the blood-vessel. If this happened during the last few days of life—and we can scarcely suppose the thrombi to have lasted for longer—the condition of the abscess walls and the patient's clinical history both confirm the opinion that the hepatic abscess was of older date than the blood-clots. It is highly probable, this being so, that cocci may have escaped into the pulmonary artery in small numbers before the final catastrophe brought about the thrombosis, and that they were seized upon and destroyed by leucocytes ere much harm was done. Both pathology and comparative physiology render it probable, as I have elsewhere shown,[12] that phagocytes after a meal of this kind often seek to free the blood from their presence as soon as may be by passing out of the blood-vessels into the peri-arterial lymph spaces.[13] In the lungs, owing to the substitution of oxygen for the carbon peroxide of the hæmoglobin, the activity and energy of all intervascular changes are accentuated generally and that of protoplasm in particular, and we ought to look for and expect evidences of these changes in pulmonary pathology. The present case furnishes conclusive information on these points if it is rightly construed. The lines of pigment which map out the branches of the pulmonary artery represent the "dumping ground" of half-awakened leucocytes poisoned by their meal upon streptococci pyogenes. That this is no fanciful explanation of these pigmentary deposits there is evidence in the clots themselves, for I have found several leucocytes filled with granules embedded therein, caught and retained in the firmly clotted blood.

We may conclude therefore with a reasonable assurance that our conclusion is true that pigment granules in the lung substance represent in many cases partially burnt or in other words digested dust removed from the pulmonary vessels by phagocytes; and, furthermore, that there is no satisfactory evidence in support of the conjecture that the pigment is ever caused by inhalation of smoke-carbon suspended in the air. The latter particles are probably always swept away by cilia along with the mucus coating the air passages. If we examine the small masses of black pigment so commonly found in the expectoration of a townsman after an influenzal catarrh they will be found to consist apparently of two varieties—namely, of granules contained in oval sacs many of which average 0·001″ long diameter and of granules not surrounded by a cell wall. Sometimes it may happen that the free granules have escaped from a sac

[9] Practical Pathology, by Dr. Sims Woodhead, 1885, p. 281.
[10] American Journal of the Medical Sciences, January, 1871, paper by Francis Delafield.
[11] Annals and Magazine of Natural History, Series 6, vol. xvii., p. 162.
[12] Journal of Pathology and Bacteriology, vol. iii., pp. 1 et seq.
[13] There are two directions in which living bacteria may be supposed to pass along the lymphatics, in the direction of the current or against it. I believe that these organisms usually move with the stream—that is, mainly from the blood-vessels to the neighbouring lymphatic glands.

through rupture of the walls, but there is no evidence of this accident in many cases. With the exception of a difference in size, to be accounted for by some general shrinkage in the microscopic sections, a comparison of the pigment cells in sputum with others in the pulmonary tissues shows a resemblance between them which I believe implies an identity of origin. In other words we have here unfolded to our view a second line of defence in the lungs, whereby even after the entrance of pernicious organic dust into the blood[14] the freshly stimulated phagocytes in the smaller branches of the pulmonary system of vessels at once attempt its oxidation and removal.

The difference in size between the granule-bearing cell and the average leucocyte may be explained as follows: the pigmented cell is a leucocyte surfeited with the plethora of an indigestible meal. These large cells are found mostly outside the blood-vessels either in the pulmonary tissues or in the sputa of a patient. They then represent cells whose active locomotion is over or is largely replaced by internal molecular movements, constituting digestion and tending to the growth or enlargement of the cell. It is not difficult in many cases to pick out pigment cells in various stages of growth from the size of an average leucocyte onwards. In the higher vertebrates the extra-vascular pigmented cell must be a comparative rarity, to be met with only in cases of urgency when the blood-motes are from sheer numbers in danger of gaining an ascendancy over the rest of the body. Otherwise much organic dust in the pulmonary system of blood vessels, after being devoured and partially consumed by phagocytes, is conveyed onwards by them to the left auricle. Thence the blood current makes a twist upon itself before reaching the aortic ostium by passing sharply round the free edge of the aortic cusp of the mitral valve. This mitral curtain corresponds to the single valve, guarding the auricular opening in reptiles, and is most developed in birds.[15] Conformably to its ancient evolutionary pedigree we might expect this flap to be affected at an early period, whenever an excess of half-poisoned leucocytes passed around it. And so I believe it really is, although I have no statistics bearing upon this statement; my experience certainly favours the supposition that atheroma more frequently affects this cusp than it does other parts of the endocardium. In tracing the subsequent progress of the surfeited phagocytes along the blood-vessels we should have to recapitulate the arguments I have elsewhere given in favour of the dust origin of aortic atheroma. This is unnecessary. I shall content myself with pointing out that the partial failure of the dust-restraining function of the lungs offers a simple and more satisfactory explanation of the etiology of aortic atheroma than any other that I have yet seen.

Brighton.

[14] Oftentimes through the portal system.

[15] Article, "Birds" (Rees's Cyclopædia), written by Macartney and quoted by Owen, ibid., vol. ii., p. 203.

A BRIEF ACCOUNT OF TROPICAL ABSCESS OF THE LIVER.

BY C. W. WINDSOR, M.A., M.D. CANTAB.

IN this article I have endeavoured to bring out the striking connexion of dysentery with hepatic abscess and also to try to prove some relation between these two affections and the amœba coli. My own experience has been derived from the study of cases during the last two and a half years at the *Dreadnought* Seamen's Hospital, where perhaps more cases of abscess of liver and dysentery are met with than elsewhere in England. A brief *résumé* of the cases appears at the end.

Symptoms.—The onset of the symptoms of tropical abscess of the liver is commonly gradual and insidious and the patient may only seek advice when the abscess is fully developed. In many instances everything points to the presence of an abscess but there is no one single symptom or physical sign which is absolutely diagnostic of the condition. Early in the case the patient may complain of lassitude, weakness, and feeling of general ill-health and of loss of appetite and impaired digestion. A general alteration in the complexion is very often noticed, though when the patient has lived for a long time in tropical climates this change will not be very well marked. This alteration is one of increasing sallowness with a muddy, earthy appearance of the face. The eyes look heavy and there are deep shadows beneath them. There may be attacks of jaundice either transient or permanent, but it is not common to see any of the symptoms of biliary obstruction. The bowels are usually constipated and obstinate vomiting is said by Murchison to be frequent, but in the cases I have seen this has not been present in one; digestion is impaired and the tongue is coated. The first definite sympton is that of pain commonly situated in the right hypochondrium. This may be of two kinds: (*a*) a dull, heavy, aching pain; and (*b*) a sharp, stabbing pain. The former is the more common and usually shows the gradual increase in size and stretching of the liver tissue and integuments. The presence of a pain referred to the tip of the right shoulder is common. The sharp, stabbing pain is probably nearly always due to pleurisy or in rarer cases to perihepatitis. The pleurisy often goes on to the effusion of fluid though only to a moderate extent—*vide* case. This symptom—i.e., pleurisy—is brought about by the extension of the inflammation to the superficial parts of the liver, causing adhesion of the liver to the diaphragm and then implicating the parietal and visceral layers of the pleura. This process may stop short at almost any stage, so that the liver may not be adherent to the diaphragm or the layers of the pleura may not be involved at all, or only the parietal layer, in which latter case the pleural cavity is open. In long-standing cases the liver, diaphragm, and pleura are all firmly matted together, so that perihepatitis to a limited extent—i.e., over the surface of the abscess—is very common, but this is not invariably the case, as sometimes the liver is quite free from the diaphragm and has to be stitched to the edge of the wound before the abscess can be opened. Great stress has been laid on this perihepatitis from the point of view of diagnosis, but I think that the differentiation of friction due to perihepatitis from that due to pleurisy, except in those cases where well marked friction is heard either low down over an enlarged liver or in the epigastrium, must be almost impossible. The size of the liver is of great importance; there is usually enlargement which may be upwards or downwards or in both directions, the former being common. It must be remembered that any increase of the dulness above the sixth rib may be due to a localised collection of the fluid in the right pleura quite as much as to enlargement of the liver. The increase in the liver depends upon the situation and size of the abscess. The lower border is often felt to be smooth and rounded as if the edge had been rolled under; the contraction of newly-formed fibrous tissue on the under surface (due to perihepatitis) may account for this. There may be bulging of the right side and bulging of the intercostal spaces with perhaps slight increase in measurement; if the left lobe be implicated there will probably be an easily recognised elastic swelling in the epigastrium. The increase in the area of liver dulness may be appreciable behind, usually extending upwards towards the angle of the scapula. There is nearly always tenderness on palpation over the liver, especially on firm pressure in the lower intercostal spaces. A very constant and valuable sign of hepatic abscess is œdema of the skin over the lower ribs, but this is not absolutely diagnostic any more than in a case of empyema. Redness of the skin and fluctuation will be present only when the pus is approaching the surface. There is pyrexia of a remittent or intermittent type; this fever is not as a rule very high, 102° or 103° F. being the common limits. It may show curious remissions, the patient being free from fever for a few days, after which the temperature rises and may take a typical hectic character. In some cases the fever may be slight or even absent, especially in long-standing cases. Actual rigors are not commonly seen except occasionally in the early stages of the disease, but the occurrence of profuse sweatings, especially at night, is considered a characteristic feature; these sweatings are not so frequent as in pyæmic abscesses of the liver. Jaundice has already been mentioned as being rare; Murchison attributes it to a catarrh of the bile ducts. It was only noticed in five cases out of 120 collected by Moorhead. Marked emaciation is very commonly found and, with the sallow cachectic complexion, helps to give the patient a very characteristic appearance. It is only rarely that portal obstruction is brought about by the pressure of a large abscess.

Terminations of a tropical abscess.—It may be diagnosed and treated surgically. Rupture of the abscess into the general peritoneal cavity may occur, as was the case in four of the fifty-eight cases treated in the Seamen's Hospital during the last twenty-seven years. In the same series ten abscesses perforated the diaphragm, six of these bursting through the lung and four opening into the right pleura. The stomach, transverse colon, and right kidney were perforated once each in the above series. It will be noted that there is no case amongst the fifty-eight just mentioned showing the rupture of an hepatic abscess into the pericardium, so we may fairly presume this mode of termination to be rare as this series may be taken as representing a record of average cases. Apart from surgical interference it is most common for the abscess to extend upwards and burst through the lung; in the recognition of this condition the expectoration of brick-red pus is most important. The diagnosis of tropical abscess of the liver is not always simple; many features may be present to render the presence of an abscess probable, but an exploration with a syringe and hollow needle is almost always necessary before the diagnosis is settled. Stress will naturally be laid on the question as to whether the patient has lived in the tropics or if he has had dysentery. Empyema has been frequently confused with tropical abscess, but the characteristic red pus ought to prevent error. The diagnosis between tropical abscess and a large subphrenic abscess is almost impossible before operation and even then the distinction is not always clear. Congestion of the liver, cirrhosis, or acute hepatitis may present a little difficulty, but an exploration will put the matter beyond doubt.

Treatment.—We can be very brief on this subject as it rests entirely with the surgeon to say how the abscess shall be evacuated. It is important that operation should be undertaken as soon as the abscess is diagnosed; nothing is gained by delay, it being useless to wait until adhesion of the various structures has taken place with the idea of minimising the risks of the operation. If the layers of the pleura are non-adherent or the liver not attached to the diaphragm these layers must be stitched together and the abscess opened a few days later when adhesion has taken place. It does not concern the physician to decide on the merits of the different operative procedures, but one may perhaps express the preference for resecting a portion of rib and free incision of the liver over the abscess to the plan of aspiration which is frequently recommended. The prognosis in tropical abscess cannot be expressed in very certain language. So much depends upon its early diagnosis and active treatment; under these circumstances the outlook is quite hopeful. But when an abscess has existed some time and then finally bursts into the lung or some abdominal viscus the patient has rather a poor chance and frequently succumbs to exhaustion or to some intercurrent affection, especially dysentery.

Pathology and morbid anatomy.—Most commonly only one tropical abscess is found in the liver, but there may be two or three large ones quite separate or communicating with each other by narrow channels; and in some cases there may be a large number of small abscesses scattered throughout the whole of the organ. When the abscess is single it is far more frequently found in the right lobe and nearer to the upper surface, as shown in Waring's series of 300 cases, in nearly 70 per cent. of which the abscess was in the right lobe and nearer to the convex surface. It is fair to suppose that where one abscess has been successfully treated and the patient recovers that only one abscess was present in the liver, although it has been suggested that other abscesses may have been present but were eventually absorbed but this is far from probable as the effect of the operation would be to stimulate other purulent collections rather than promote their absorption. Waring found that out of 288 cases of tropical abscess 177 were single. At the Seamen's Hospital, Greenwich, between 1870 and 1895, in 25 cases out 44 the abscess was single. At the same hospital during the last two years 7 cases have been recognised, 2 showed multiple abscesses, whilst the remainder were single. So that out of 51 cases 30 showed the presence of only 1 abscess—i.e. nearly 60 per cent. These 30 cases were judged to be single thus: 14 were examined post mortem; 12 recovered after one operation; and 4 burst through the lung and recovered. The remaining 21 cases were composed thus: 13 with multiple small abscesses and 8 with 2 or 3 large abscesses. It is difficult to say why the tropical abscess is usually single, there must be something in the nature of the tropical abscess to account for this fact as other varieties of suppuration in the liver are almost always multiple.

Presuming that the abscess is caused by something travelling to the liver from the ulcerated large intestine, then this material would be disseminated throughout the liver following the distribution of the branches of the portal vein, and why should an abscess form at one place and not be scattered in different parts of the organ? No definite solution can be given. It is probable that a large abscess is formed by the fusion of several small collections of pus. One may say that a lowering of the vitality of the liver tissue at one spot will determine the formation of an abscess there, but this assertion brings one no nearer to answering the question. Those who attribute tropical abscess to acute hepatitis say that the inflammation is most severe at one spot and so goes on to the formation of pus, but this is only pure assumption and based upon the somewhat slender foundation of acute hepatitis, which is itself a little open to doubt. The size of tropical abscess varies between very wide limits, a superficial collection of a few ounces of pus may produce sufficient indications for operation, while in long-standing cases there may be a huge abscess containing as much as three pints of pus which has only produced marked symptoms in its later stages or may even have passed unrecognised until discovered at the necropsy. The abscess cavity is lined with a ragged yellow material presenting a shaggy appearance, or the inner walls of the cavity may be honeycombed, the interstices of which contain pus. This lining membrane consists of necrosed liver tissue, leucocytes and coagulated fibrin. A definite fibrous capsule is very rarely seen, and then in chronic cases only, but there is always a zone of hyperæmic liver tissue surrounding the abscess which merges on the one side into normal hepatic substance and on the other into the shaggy membrane lining the cavity. If the abscess has approached the surface there will be considerable thickening of the peritoneal coat of the liver, and the process may extend still farther involving the diaphragm and layers of the pleura, matting all the layers together into firm fibrous tissue. The pus contained in the abscess is very commonly of a brick-red or anchovy sauce-like colour due to the disintegration and necrosis of the liver tissue accompanied by slow oozing of blood into the abscess. This colour of the pus is very characteristic, although not met with in every case, cases which have been diagnosed as empyema or pleural effusion only being rightly diagnosed as having their origin in the liver by the withdrawal of this reddish coloured pus. It is probable that this colouration of the pus only occurs when the abscess has reached a moderately large size, for in a recent case in the Seamen's Hospital the large abscess had burst into the pleura and was aspirated under the belief that the patient had an empyema. Chocolate-coloured pus was removed, while on examination of the liver at the post-mortem examination three small abscesses about the size of a walnut were found in which the pus was of the ordinary yellow colour. After an abscess has been opened the pus quickly loses this red colour and the draining on the third day is usually of the ordinary colour of pus. On microscopic examination there is a great preponderance of the ordinary granular pus cell staining deeply with logwood. In addition one sees large irregular shaped cells with a large solitary nucleus, sometimes deeply stained with bile. These represent liver cells in various grades of disintegration and necrosis. Red blood corpuscles are in great abundance; cholesterin crystals and fat globules are also seen.

The pus from a true tropical abscess usually shows a complete absence of pyogenic organisms. In several of the cases at the Seamen's Hospital recently attention has been paid to ascertain the truth of this assertion. When a true abscess has been suspected and an exploration puncture is about to be made the skin is thoroughly cleaned and the exploring needle sterilised. The pus withdrawn has been carefully examined with high powers under the microscope and no organisms have been found. In addition to this several culture tubes of blood serum and agar-agar have been inoculated with the pus both on the surface and by stabbing and no effect on the nutrient medium has been produced nor has a growth of staphylococci or other organisms been found. As bearing on this question of the sterility of the pus Case 7 is interesting. At the time of operation no adhesions were found and the peritoneal and pleural cavities were opened and some pus undoubtedly entered. The liver was then stitched to the edges of the wound and the layers of the pleura united. No peritonitis or pleurisy developed

and examination of the pus failed to show any pyogenic organisms. Osler expresses the opinion—based upon Councilman and Lafleur's experiments—that the pus of "tropical abscess" (connected with dysentery) is quite free from pyogenic bacteria. On the other hand, Macfadyen holds that in tropical abscesses pyogenic organisms are constantly met with, staphylococcus pyogenes aureus being the commonest, while the staphylococcus albus and streptococcus pyogenes are often found.

This point about the sterility of tropical abscesses is most important. If it can be clearly proved that infective organisms are constantly present and are the essential cause of the suppuration then there will be little reason for differentiating a special class of abscess of liver; that is to say, all hepatic abscesses will be of an infective nature and the only features specially characteristic of the tropical abscess would be its occurrence most frequently in the tropics, its tendency to be single, and finally a curious connexion with dysentery. This latter connexion would be quite easily explained by the entrance of the infective organisms from the lesions in the large intestine into the lymphatics or portal radicles and which would so be carried to the liver. On the other hand, if we admit the conclusions of Councilman and Lafleur, supported somewhat by the observations on our own cases, as being substantially accurate, the pyogenic character of the abscess would be disproved and it would be necessary to find some other cause for the production of tropical abscess.

Admitting that careful examination of the liver pus fails to reveal any septic organisms there is another frequently found constituent of the pus of tropical abscess which it is necessary to recognise and place upon it whatever value it may possess. When examined in the ordinary way, in addition to the ordinary constituents of the pus a certain number of large round bodies considerably larger than white corpuscles are seen containing a number of red blood cells and an indistinct nucleus. The ground work under a low power looks granular, but on focussing a large number of vacuoles are seen. On staining with logwood the nucleus becomes very apparent but the vacuolation is not so distinct. If no other steps be taken in the examination of the pus nothing further will be made out with regard to these round bodies. But if, on the other hand, the pus be kept at a temperature of 100° F. from the time of its removal from the body (either from an exploration or from the fresh drainings from the wound after the abscess has been opened or from the freshly collected sputum in those cases in which the abscess has burst through the lung) and examined upon a warm stage these bodies undergo a most remarkable series of changes. The method that I have adopted is to collect the fresh pus—preferably that of a yellow colour—in a warmed test-tube which is then placed in a vessel containing hot water, the pus will then be kept warm and can be examined on a warm stage almost at one's leisure. The changes about to be described have been observed after the pus has been kept in this manner for twenty-four hours. A very handy and simple warm stage can be made out of a strip of copper 14 in. long and 1 in. wide, the lower edge being bent up at a right angle forming a support for the slide; in the middle of the copper a round hole of about 1 in. diameter is cut through which the light is reflected up from the mirror on to the specimen. At each end of the copper a small spirit lamp suffices to treat the whole length of the copper bar and also the slide resting upon it.

One very important thing to be remembered in the search for amœbæ is the fact that the pus withdrawn at an exploration or that evacuated at the time of operation very frequently contains no amœbæ whether living or dead. At the same time the fact will be recalled that the pus found under these conditions is nearly always of the brick-dust colour. But if the pus is carefully examined on the warm stage amœbæ will almost certainly be found on the second or third day and then as the discharge diminishes and the pus becomes yellower amœbæ may be abundant. It thus appears probable that the amœbæ remain near the spreading border of the abscess and not in the older pus in the central part of the abscess. This has been the case in at least four of the seven cases which have come under my own personal observation. I feel sure that if this fact were fully realised and the adequate precautions taken when searching for the amœbæ many cases which have been declared free from them would show their presence. In the last seven cases out of the series of fifty-seven taken from the Seamen's Hospital, Greenwich, the pus was not examined in two, and out of the remaining five four showed amœbæ, and in two recent cases under the care of Dr. Patrick Manson both showed the presence of amœbæ. In the earlier cases of this series of cases the microscopic examination of the pus was not made. During recent years amœbæ have been frequently found in liver pus, especially by American observers. When examined in the method described the bodies, which in the ordinary examination are round, show most active movements and the greatest variations in shape. These, then, are easily recognised as the amœbæ coli. Owing to the constant movements the size of the amœbæ cannot be stated; but some are large, with a diameter of 60μ; others are smaller, with a diameter of from 25μ to 40μ. Their shape is oval or round in a resting or dead condition, but when actively moving presents great variations. The constant and characteristic feature of these organisms is their capacity for throwing out pseudopodia, it may be in one or in several directions. Under observation a short, thick, blunt-pointed projection appears at the edge of the amœbæ which gradually increases in length by a peculiar flowing movement, the amœbæ itself becoming proportionately smaller. This pseudopodium has precisely the same structure as the main body of the amœbæ. Sometimes it is withdrawn into the body of the amœba or its extremity may become fixed, and the whole body of the organism merges into the pseudopodium again. One characteristic of this throwing out of processes is the power the amœba has of enclosing neighbouring cells or particles. One can often see the inclusion of a red corpuscle thus take place.

The structure of the amœba is difficult to make out clearly owing to its hyaline translucent character. There appears to be a well-defined outer edge although the organism is really a naked mass of protoplasm without a cell membrane. The main body of the amœbæ may be divided into two parts (1) an outer clear investment, the ectosarc; and (2) the inner granular looking endosarc. In the latter numerous small vacuoles are seen, not of regular size but occasionally one is seen considerably larger than the others; nothing has been seen of the nature of a contracting vacuole, in which respect it differs from the ordinary freshwater amœbæ. Situated in the endosarc is the large single nucleus, but this cannot be usually seen in living specimens but in amœbæ killed with a little acetic acid or by cold the nucleus is brought out distinctly on staining with logwood or magenta. In nearly every amœba a variable number of red corpuscles are seen. There may be as many as fifteen or twenty arranged in various ways and their overlapping edges help to give rise to the granular appearance of the endosarc. Sometimes dark masses of pigment are seen and the amœbæ are sometimes stained yellow with bile. It has already been mentioned that in all the amœbæ under my own observation no micro-organisms have been found in living or stained preparations. This is equally true of those found in liver pus or in dysenteric stools, which latter have been swarming with bacteria.

Influence of race.—Tropical abscess of the liver is much more common among Europeans living in the tropics than among the natives, although it is curious to note that the latter class suffers almost equally from dysentery and malaria (Cayley). It is a striking fact that as civilisation in India increases so does the frequency of tropical abscess among the richer and more leisured class of natives. In the series of 57 cases at the Seamen's Hospital, Greenwich, the race was noted thus: British, 38; Germans, 3; Hindoos, 7; Scandinavians, 4; Africans, 3; and Portuguese, 2. With regard to age tropical abscess is very much commoner between the ages of twenty and forty years; thus in the above series of cases 40 of the 57 were between these limits. Tropical abscess is far commoner in men than in women.

[The continuation of this paper, dealing with the connexion between tropical abscess and dysentery, and a set of illustrative cases will appear next week.—ED L.]

THE RETREAT, YORK.—The 101st report of The Retreat, York, a registered hospital for the treatment of mental diseases, states that on June 30th, 1897, there were 156 patients in the institution, 63 men and 93 women, the average number of patients during the year being 156·04 or 1·76 less than during the previous year. With regard to the finances the amount received as board of patients shows a slight increase as compared with the year 1896 and is higher than in any previous year. The nurses' accommodation has been improved.

A CASE OF

HYSTERECTOMY WITH SOME UNUSUAL AND INTERESTING COMPLICATIONS

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ON June 8th of this year I was asked to see an unmarried woman, aged forty years, whose menstrual periods had always been very regular every four weeks. She said that about two and a half years ago she had a sudden attack of very severe pain over the womb which lasted some hours and was attended by faintness, and about three months before I saw her another similar attack with vomiting had occurred. After these attacks she was quite sure that she had no vaginal discharge. The condition of her bowels lately had varied between diarrhœa and constipation. For years she had been troubled with having to pass urine day and night at short intervals. Under an anæsthetic an examination revealed a moderately large tumour of the uterus situated on the left side. When the os uteri was pulled down with a volsella the sound passed in a distance of barely one inch. On the right side was another tumour of larger size but much less resistant to pressure.

On the 11th I opened the abdomen and found no difficulty in withdrawing a cylindrical-shaped fibroid tumour weighing nineteen ounces in which the diminutive uterus was buried. A wire was passed round the cervix and made to include the left ovary and tube. On approaching the right side I found a hæmatomatous-looking tumour which appeared to be so soft that I extended the abdominal incision above the umbilicus so as to enable me to enucleate it with less risk of rupturing it. I then packed it all round with sponges and turned out a large quantity of old blood-clot. The bowel was adherent, but there was not much difficulty in separating it and teasing out the tumour until a pedicle was found and secured at the broad ligament. No ovary or tube was discovered. (I am sending this specimen to Mr. Bland Sutton to ask him to be good enough to tell me what it is and to append his opinion to this report.) The uterine stump was so easily brought outside the abdomen that the serre-nœud pins had no strain on them. Everything went on well with a normal temperature till the fourth day, when she began to complain of flatulent distension and great discomfort. A saline draught of sulphate of soda and sulphate of magnesia was given and frequently repeated until fourteen drachms had been used; in addition she had fifteen grains of calomel in three doses of five grains each. Turpentine enemas were also used with both long and short tubes, but neither flatus nor motion was passed. On the sixth day she began to vomit and continued on this and the following day to bring up large quantities of characteristic fæcal matter. Both the vomit and the breath were offensively fæcal to the smell. She had been going on so well up to the fourth day that she was then taking teaspoonfuls of Brand's essence and ounce doses of peptonised milk. Her temperature was now slightly subnormal in the morning with a rise in the evening of only 1° F. I used my utmost endeavours with her to allow me to open the wound to find out the cause of obstruction, but she would not hear of it. After vomiting set in nothing was given by the mouth, and beef enemata were administered. On the eighth day the nurse, on washing out the rectum before giving a nutrient enema, noticed what she thought was a fæcal smell coming from the discharged water, and as the beef-tea injection was not retained she kept it for my inspection as she thought that it looked fæcal in character. This point, however, was soon set at rest, as during the day several large loose motions were passed.

There is nothing further worthy of notice to report in this case. The convalescence was rapid and the bowels afterwards, if showing any tendency to sluggishness, were easily relieved by teaspoonful doses of castor oil. I have never known of a case with fæcal vomiting where the termination was favourable without the obstruction being relieved by operation.

Christchurch, New Zealand.

Note by Mr. BLAND SUTTON. — The blood-containing tumour was an ovarian cyst which had undergone acute axial rotation.

CASE OF OVARIAN CYST WITH UNUSUAL HISTORY.

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A WOMAN, aged sixty-two years, a widow, mother of two children, was admitted to the Hospital for Women and Children on July 14th, 1897, for ovarian tumour. She passed the menopause at fifty years of age and seemed to have enjoyed very good health till four years ago, when a soft, uniform enlargement of the abdomen was noticed. This did not seriously incommode her till about Christmas, 1896, when the increasing size of the abdomen began to interfere with breathing and she had much pain in the back. But in March, 1897, she was taken very ill and was seen by Mr. J. W. H. Brown and Mr. A. E. Ellison, of Holbeck, who have kindly given me details of the condition in which they found her. She was suffering from pneumonia of the right base and probably also of the left. She was extremely prostrate; her breathing was rapid and shallow, the pulse was very rapid and feeble, the lips and nostrils were covered with herpetic sordes, and the abdomen was enormously distended with fluid, being tense and elastic with well-marked thrill. The urine was not albuminous; the bowels were costive. The patient was unconscious and wandering and seemed at first to be absolutely moribund. Ether and digitalis, &c., were administered, and on March 18th paracentesis was performed in the middle line two inches below the navel. Three and a half gallons of excessively offensive, opaque, greenish brown fluid were slowly evacuated. The abdomen became quite flat except in the hypogastric region, where the cyst wall could be felt like thick leather. After this the patient slowly recovered, but the cyst began to fill again. On admission (July 14th) the patient was found to be a thin, spare, anæmic woman. There was some arcus senilis; the arteries were rather hard. The lips were stained with pigment where the sordes had been. The abdomen measured forty-four inches in circumference and presented the usual signs of a large single cyst rising out of the pelvis to two-thirds of the distance between the navel and the sternum. The flanks were resonant; no solid portion was felt in the tumour. The uterus was mobile and anteverted. Some ill-defined swelling was felt in the right cul-de-sac. The lungs were healthy, the temperature was normal, and the urine also. There was no sign of peritonitis or of septicæmia. In deciding to perform ovariotomy at once I felt anxiety on account of the possible condition of the cyst contents, the probability of adhesions, and the age and weak state of the patient. Ovariotomy was performed on July 21st, 1897. Ether was administered by Dr. Wear. I was assisted by our house surgeon, Mr. Pierson, and Mr. Ellison was present. The tumour was found to consist of one very large cyst with a thick wall. It sprang from the left side and had a pedicle two inches wide. It contained eleven pints of greenish-yellow, opaque fluid which was neither purulent nor offensive. There were extensive adhesions to the abdominal wall, to the omentum, and to the colon. The parietal adhesions were easily broken down; the omental adhesions were ligatured and divided. Those to the colon were separated by careful use of blunt dissector and dissecting forceps. This was a little tedious but was successfully completed. The cyst had no pelvic adhesions. The pedicle was ligatured in two portions. The fundus uteri contained a fibroid of the size of a small orange, but this was not disturbed. The right ovary was embedded in adhesions and seemed somewhat large but not cystic. This also was left untouched. The abdomen was flushed out with sterilised water. There was no serious oozing from the separated surfaces. A glass drainage tube was left in the wound for forty-eight hours. The wound was stitched in three stages and it healed without any suppuration. The temperature was normal from the third day onwards and the patient made a rapid recovery without any bad symptom.

Remarks.—In spite of the tendency of tapping to produce adhesions it holds its place in the treatment of ovarian disease as a measure to be resorted to in cases such as this, when a major operation is for the time being impracticable. Here it saved the patient's life. The most striking feature

in the case is the fact that the contents of the cyst were offensive at the time of tapping but not at all so five months later at the time of ovariotomy. The two practitioners who performed the tapping assure me that the fluid drawn off had such a sickening stench that they had to leave the room at frequent intervals to breathe fresh air. At the ovariotomy we noticed no smell whatever, and after some of the fluid had stood two days in warm weather it was still free from unpleasant odour. The cyst wall was rough inside and coated with caseous matter. There were one or two very small secondary cysts in the wall. I have no data to decide whether the pneumonia was secondary to a septic condition of the cyst contents or whether the contents became offensive on account of the pneumonia. But after the evacuation of the fluid the constitution seemed able to deal with any germs that were left and a more satisfactory issue from a desperate condition could hardly be experienced.

Leeds.

AN ANALYSIS OF EIGHTY CONSECUTIVE CASES OF ENTERIC FEVER.

BY ERNEST RINGROSE, L.R.C.P. LOND., M.R.C.S. ENG.

THE 80 cases from which this analysis is made came under my observation at the hospital, Newark-on-Trent, between August, 1891, and November, 1893, during which time two epidemics occurred in the town and district; 73 occurred in the town and 7 were sent in from the outlying districts. As to sex, 52·5 per cent. were males and 47·5 per cent. were females. Between the ages of one year and five years there were 8 cases; between six years and twelve years there were 22 cases; between thirteen years and twenty years there were 27 cases; between twenty-one years and thirty years there were 11 cases; between thirty-one years and forty years there were 8 cases; and between forty-one years and fifty years there were 4 cases. One case only occurred in which the patient had had enteric fever previously—viz., four years before. The initial subjective symptoms were chiefly headache (frontal), vomiting, and pain in the abdomen; in 27·5 per cent. of the cases there was epistaxis.

The maximum temperature, taken in the axilla, was as follows: 109° F., 1 case, fatal; 108°, 1 case, fatal. The temperature ranged from 104° to 106° in 12 cases, 4 of which were fatal; 103° to 105° in 28 cases, 4 of which were fatal; 103° to 104° in 28 cases, 3 of which were fatal; 102° to 103° in 7 cases, none of which were fatal; and 101° to 102° in 3 cases, none of which were fatal. The highest temperature reached during the attack occurred during the first week in 19 cases; during the second week in 28 cases; during the third week in 23 cases; during the fourth week in 6 cases; and during the fifth week in 4 cases. The temperature remained normal at the end of the second week in 1 case; during the third week in 17 cases; during the fourth week in 24 cases; during the fifth week in 8 cases; during the sixth week in 10 cases; and during the seventh week in 7 cases. In 40 cases the temperature became and continued subnormal throughout convalescence.

Two relapses occurred in 1 case with return of all the symptoms and one relapse occurred in 18 cases, with return of all the symptoms in 6. The interval of apyrexia before relapse averaged eight days; in 1 case the interval was twenty days, this was in a child aged ten years, whose primary attack had been most severe; there was a complete return of symptoms which lasted eleven days; in no cases except this one could the relapses in any way be attributed to change of diet. The average duration of the relapse was nine days, the temperature assuming the intermittent type.

With regard to the spleen, enlargement was made out by palpation in 20 cases; increased splenic dulness (no tenderness and spleen not felt) occurred in 3 cases.

There were typical rose spots in 67 cases and no rose spots in 13 cases. The rash appeared in the first week in 2 cases, in the second week in 42 cases, and in the third week in 23 cases. The spots came out in one crop in 28 cases and in several crops in 39 cases.

As to the bowels: (1) in 11 cases no diarrhœa occurred throughout the attack (constipation); (2) in 51 cases the stools were typical; (3) in 11 cases the stools were loose and offensive but not typical of anything; and (4) in 7 cases the stools were normal. Constipation was very troublesome in 36 cases, especially about the beginning of the third week. An enema of olive oil followed by an enema of glycerine proved by far the most efficacious treatment.

Hæmorrhage took place in 9 cases, 2 of which were fatal. In 1 case, that of a patient aged fifty years, the hæmorrhage was profuse (ten attacks in three days) and the total loss of blood was twenty-one and a half ounces. This patient made a very quick recovery. The temperature came down to normal after the last hæmorrhage and remained normal. Hæmorrhage occurred in 1 case during the second week, in 6 cases during the third week, in 1 case during the fourth week, and in 1 case during the fifth week.

With regard to nervous manifestations severe delirium occurred in 36 cases, troublesome insomnia in 5 cases, and melancholia in 3 cases. Typical epileptiform convulsions were present in 1 case; tremor and deafness were not frequent. As to complications, pneumonia occurred in 20 cases—right in 10, left in 4, and both in 6; pleurisy with effusion occurred in 1 case; suppurating glands occurred in 2 cases—axilla in 1 and neck in 1; albuminuria occurred in 13 cases—in 6 cases there was only a trace and in 7 cases there was from one-twelfth to one-sixth; retention of urine occurred in 3 cases; thrombosis of the long saphenous vein occurred in 1 case; hæmaturia occurred in 1 case; and abscess over the buttock occurred in 1 case. Mitral systolic murmur developed in 3 cases, lasting not longer than two weeks. Bradycardia, lasting two weeks, occurred in 1 case, the pulse falling to 40. The apex of the lung became impaired in 1 case. Purpuric eruptions appeared in 3 cases; 1 case was complicated by whooping-cough. No case of ulceration of the larynx occurred.

The death-rate was 16·25 per cent; 4 cases died during the second week, 5 during the third week, 3 during the fourth week, and 1 during the sixth week. Hyperpyrexia caused death in 2 cases, peritonitis (perforation) in 3 cases, pneumonia in 3 cases, hæmorrhage and exhaustion in 2 cases, cardiac failure (sudden) in 2 cases, and bronchitis and collapsed lung in 1 case.

The following points appear to me to be of interest: (1) the marked influence of severe hæmorrhage in the one case; (2) the infrequency in which the spleen could be felt; (3) the unusual period of twenty days occurring before a relapse; (4) the frequency of transitory albuminuria, the effect of the poison and not of nephritis; and (5) the presence of an epileptic attack during the course of enteric fever.

Newark-on-Trent.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF HICCOUGH OF UNUSUAL DURATION AND SEVERITY; SUCCESSFUL TREATMENT BY GALVANISM.

BY GEORGE HERSCHELL, M.D. LOND.,
SENIOR PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE HEART, SOHO-SQUARE.

A WOMAN, aged twenty-four years, first attended my out-patient clinic on Oct. 23th, 1895, complaining of persistent hiccough, from which she had suffered for a week. The attack had been preceded by a prolonged period of overwork and worry. She was markedly anæmic but nothing else could be detected upon a physical examination. She improved very much under treatment consisting of iron, bromides, bismuth, and arsenic, but still continued to have a mild attack every few days. In March, 1896, she had a severe fright, after which the attacks greatly increased in severity and frequency. It was found that the medicines which formerly did her good were now without good effect and in the case of the iron it made her worse. She derived most benefit from bismuth with which I succeeded on two occasions in stopping the attacks for a few days. In each case as she was so anæmic (hæmoglobin 30 per cent., red corpuscles 2,300,000) I followed it up with iron, with

the result of immediately after two or three doses bringing back the hiccough as bad as ever. Valerian and assafœtida made her worse. In April, 1896, whilst waiting in the hall of the hospital she had the severest attack of hiccough I have ever seen in my life, and I thought at one time that she would die then and there from failure of the heart. I had her at once taken into the consulting room and a continuous current of about 8 milliampères applied to her, the anode being applied alternately for a minute or so at a time, stabile to the sides of the neck, whilst the kathode was placed upon the epigastrium. The effect was almost instantaneous, the attack passed away, and she had no return of it for several weeks. At the end of this time, however, the affection returned and she gradually became much worse, the attacks frequently lasting for a whole week with, as the patient declared, no intermission. There would then be an interval of a few days, during which time she would have merely several attacks in the twenty-four hours lasting an hour or so each, and then another long spell of almost continuous hiccough. As she daily grew weaker I decided to take her into the hospital in order to give a more extended trial to the galvanism which had been so successful on a previous occasion, and she was admitted on Nov. 27th, 1896. On admission it was recorded that the spasms were of such violence as to shake the whole body and give her the greatest distress. She slept very little as she was continually awakened by the hiccough which occurred, but with less frequency, during sleep. The treatment prescribed was the daily application of 15 milliampères of the continuous current, the anode on the epigastrium and the kathode on the small of the back; this was followed by the electric brush to the epigastrium. For the first few days she improved very much, but as this was not maintained the application was altered and the anode was applied alternately to the pneumogastric nerves in the neck whilst the kathode was placed on the nape of the neck. From this date she rapidly improved and was discharged on Jan. 21st, 1897, being directed to continue the treatment in the out-patient department and to attend twice a week for galvanism. This treatment was continued until May, 1897, when all attacks having ceased for over a month she was finally discharged. There has been no relapse.

The main point about this case is its extreme duration. Dr. Edward Liveing mentions a case in which hiccough occurred in paroxysms of twelve hours' duration twice a week for four years, but I have been unable to find another one reported of anything like the severity. It is a remarkable thing that the administration of iron should have invariably brought on an attack, and I think that the fact of its having done so goes far to suggest that in this case the affection had its origin in some irritation reflected from the stomach. This theory would also be strengthened by the fact that galvanism had little or no effect until it was applied to the pneumogastric nerves. Against the hypothesis that the affection was of an hysterical nature we have the facts that it occurred during sleep, that the medicines usually of service in hysteria were without effect, and that the suggestion involved in the daily manipulation with the galvanic current and electric brush did not cure until the former was applied in one particular manner.

Queen Anne-street, W.

A CASE OF POISONING BY CANNABIS INDICA.

By C. C. BAXTER-TYRIE, M.D. EDIN.

THE following case of poisoning by Indian hemp is not only interesting in itself but sheds a vivid light on the evils of the writing of so-called popular medical works by gentlemen of good professional standing and the dispensing by chemists of unauthorised prescriptions.

A few weeks ago I was called about 11 P.M. to see a young woman who had it was alleged "gone out of her mind." I thought at first I had to do with an ordinary hysterical fit, but closer observation convinced me that although the symptoms were a curious caricature of some hysterical attacks there were other symptoms that made such a diagnosis untenable. Fits of laughter and incoherent ravings alternated with comparatively lucid intervals. She complained of various hallucinations and delusions, chief of which were a complete perversion of the relations and elapse of time and a loss of identity. She was now herself, now again a different individual, and the modifications of her behaviour in relation to her dual personality were grotesque. I was entirely at a loss as regards the cause of the patient's condition until her mother volunteered that she had been taking Indian hemp. Like many other foolish people they had purchased a book on family medicine. The girl had suffered severely from headache for some time and after consulting the book they pitched upon Indian hemp as the likely remedy. A local chemist made them a dozen pills each containing one-half grain of the extract. The girl took one with no relief then two with a similar effect. She then concluded that they were "a fraud" and to demonstrate it swallowed the remaining nine with the result that I found her four hours after in the above-mentioned condition. I administered strong coffee and gave her a few doses of strychnine and she quite recovered on the following day. It is a well-known fact that many victims of morphine and cocaine have derived their knowledge of these drugs from books on popular medicine, and it was very injudicious for the chemist to make up the pills without medical sanction.

Keighley, Yorkshire.

A CASE OF TETANUS TREATED WITH INJECTIONS OF SERUM.

By THOMAS G. C. EVANS, L.R.C.P. EDIN., M.R.C.S. ENG.

THE patient was a man, twenty-four years of age, who was admitted into the Budleigh Salterton Cottage Hospital on Oct. 7th suffering from severe injuries caused by the wheels of a loaded waggon passing over him. He had a badly comminuted fracture of the left leg immediately below the knee with a great deal of bruising of the soft parts around but the knee-joint was uninjured and the larger vessels were intact; he had also a large ragged wound over the right knee. The left leg was put upon a back splint and slung and the wound of the right knee was carefully cleansed and dressed. During the next few days the skin about the seat of injury gave way in several places and the leg was put upon a perforated metal splint in order that it might be irrigated with as little movement of the limb as possible. On Oct. 23rd he complained of a feeling of slight stiffness of his neck which he thought was due to taking his food in a recumbent position; his temperature which had been almost normal for the last few days rose to 101° F. and he was drowsy. At this time the wound of the right knee was almost healed. On the left leg there were several large granulating surfaces where the skin had given way and two or three sinuses leading into the fracture. He took his food well but nothing solid after 12.30 P.M. and he had a good night. On the 24th the stiffness of the neck and jaws was increased. The patient's temperature was 98·4° in the morning and 100° in the evening. He was cheerful and took large quantities of liquid food well. After a consultation with my colleagues Dr. Walker and Mr. Semple it was decided to amputate the left thigh. This was done at 11 P.M. On recovering from the anæsthetic after the operation the patient had a severe spasm. He passed a fairly good night. On the 25th his jaws were rather less stiff, he passed a fairly comfortable day and took his food well. The morning temperature was 100·8° and the evening temperature 103°. The stump was dressed at 8.30 P.M. and 10 c.c. of antitetanic serum were injected. He was very restless the first part of the night but slept better towards morning. On the 26th there was more stiffness of the jaws and neck and he could not move his head from side to side. His temperature was 99° in the morning and 101° in the evening. At 10 A.M. 10 c.c. of the serum were injected. An ounce of castor oil was given. He had not quite so good a day, being restless. At 5.30 P.M. an enema with olive oil was given and was followed by free action of the bowels. At 8.30 P.M. the stump was dressed and 10 c.c. of the serum were injected. He felt better that evening and passed a better night, having good sleep after 4 A.M. On the 27th the stiffness was much the same. At 10 A.M. 10 c.c. of the serum were injected. He had a much more comfortable day and took nourishment well. At 5.30 P.M. an enema was given but there was no action of the bowels. At 8.30 P.M. the stump was dressed and 10 c.c. of the serum were injected. He passed a restless night. His temperature was 101° in the morning and 102° in the evening. On the 28th the stiffness of the jaws was

much the same; there was a good deal of general muscular twitching during the day. At 10 A.M. 10 c.c. of the serum were injected. He had a comfortable day. An ounce of castor oil was swallowed with difficulty. At 5.30 P.M. an enema was given and was followed by slight action of the bowels. At 8 30 P.M. the stump was dressed and 10 c.c. of the serum were injected. His temperature was 101° in the morning and 102·4° in the evening. He passed a quiet night but had not much sleep and wandered a little. He had more difficulty in taking food and was fed by a tube. On the 29th he said he felt better. At 10 A.M. 10 c.c. of the serum were injected. At 2.15 P.M. he had a spasm on waking from a short sleep and lost a little blood from his mouth, probably from biting the tongue; this frightened him a good deal. At 5 30 P.M. a castor oil enema was given, followed by a better action of the bowels. At 7 P.M. the stump was dressed and 10 c.c. of the serum were injected. The temperature in the morning was 102° and in the evening 103·4°. The patient passed a quiet night; he had not a great deal of sleep and was slightly delirious. On the 30th he was very bright and in good spirits, saying he felt better. At 9.35 A.M. he had a sudden spasm with a slight flow of blood from the nose and the mouth. He died at 9 40 A.M. The temperature in the morning was 101 4°.

This was a disappointing case, the length of time between the accident and the first symptoms of tetanus, its chronic character and the almost entire absence of convulsive spasm all gave reason to hope that the result would be favourable. Feeding presented no difficulty, liquid food being always taken in large quantities; an average amount in twenty-four hours would be six eggs, from five to six pints of milk, one pint of beef-tea, and from ten to twelve ounces of whisky. Restlessness was overcome and sleep obtained by opium given in the form of nepenthe, usually one dose of twenty minims during the day and one of thirty minims given after the dressing in the evening, followed by another of thirty minims four hours later. The serum injections had no effect whatever as far as could be seen, either good or bad, and the patient suffered no inconvenience from them.

Budleigh Salterton, Devon.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

TWO CASES OF HYDRONEPHROSIS.

(Under the care of Mr. EDMUND OWEN.)

THE following cases are very good examples of the two commonest causes of hydronephrosis in children. In the first the condition was apparently congenital in origin, though we cannot say what malformation gives rise to hydronephrosis in such cases; in some instances congenital narrowing of the ureter at its renal insertion has been found.[1] A case very similar to Mr. Owen's was recorded in THE LANCET by Mr. Arbuthnot Lane.[2] The second case occurred in a private patient under the care of Mr. Owen but we have thought it well to include it in the "Mirror of Hospital Practice" as it is in several respects similar to the first case and yet the two have many points of contrast, so that they may be usefully studied together. In this case traumatism was the cause of the hydronephrosis and the result of leaving the ruptured kidney has been eminently satisfactory. The only other frequent cause giving rise to hydronephrosis in children is the impaction of a stone in the ureter.

CASE 1. *Hydronephrosis; operation; recovery.*—A girl, aged thirteen years, was sent to the hospital by Dr. Houston Davson for a tumour of the left side of the abdomen which had been noticed only two weeks. The child had been steadily losing flesh, however, for a year, and had recently been complaining of abdominal pains; she also had had attacks of vomiting for a long while. There had been no history of colic or of hæmaturia, and there was no suggestion of tuberculosis. A large globular swelling extended from the left side of the abdomen across the median line; there was resonance around it except to the left and behind; there was no bulging in the loin. On the day after her admission, without any exploratory aspiration, Mr. Owen opened the abdomen in the median line, and, exposing the tumour, sought for possible obstruction of the ureter, and finding none emptied the hydronephrotic sac, tied the pedicle, and removed the cyst. The right kidney was larger than normal, but it appeared healthy. The tumour removed consisted of one large cyst about the size of a fœtal head, occupying the position of the pelvis of the kidney; the kidney-tissue was stretched, and involving the upper infundibula was another dilatation which opened freely into the larger cavity. A considerable amount of healthy renal tissue remained at the lower part and presented congenital lobulation.

Apparently the case was one of congenital cystic dilatation of the kidney; at any rate, no obvious cause of the hydronephrosis could be discovered. The girl made a complete recovery. Her attacks of vomiting ceased and she grew strong and plump.

CASE 2. *Traumatic hydronephrosis; nephrotomy; recovery.*—The father of this child, who was a medical man, gave the following account:—On the morning of April 26th, 1897, the patient, a boy aged seven years, was kicked on the front of the left side of the abdomen by a horse. He immediately became blanched, but complained of no great pain; he was carried home. On examination over the seat of the injury no abrasion or discolouration was found. The muscles of the abdomen on the same side were tender and tense, but beyond this nothing abnormal was detected. Persistent vomiting supervened, lasting twenty-four hours. On the evening of the accident a considerable quantity of blood was passed with the urine, and this continued until the 28th, when the urine was apparently free from blood. No severe pain was complained of, but there was tenderness over the seat of the injury. He was kept quiet, and took nourishment well after the vomiting ceased; the temperature remained below 100° F. On May 1st he was removed to London to be under the care of Mr. Rayley Owen, a tedious journey of two hours, without ill effect, and he improved so much that on the 5th he was anxious to get about, and was permitted to do so. There was nothing abnormal to be discovered on examination over the seat of injury. He remained fairly well until May 11th, when he complained of left lumbar pains and had some return of vomiting. There was no rise of temperature. On the 13th a tumour the size of a large orange was made out in the left lumbar region circumscribed and not tender. This increased rapidly without constitutional disturbance beyond occasional vomiting and sharp paroxysmal pains, which were referred to the lumbar region and the front of the left thigh. These pains increased in severity as the tumour grew larger. On May 22nd the tumour was aspirated by the loin and a wine-bottleful of bloody urine was withdrawn. The tumour at the time of the aspiration extended above to the false ribs and below to the crest of the ilium. After the aspiration the vomiting and pain ceased and the tumour disappeared, but on the third day the tumour began to refill, and with this the vomiting and pains reappeared. A second aspiration was therefore performed and with a like result. At this time Mr. Bennett kindly saw the boy with Mr. Owen, and as the tumour had recurred it was advised that an incision should be made in the loin for exploration and for needful drainage. This being done the kidney was found to be torn right across. The upper part comprised about four fifths of the gland and the lower fifth was separated from it by a considerable space in which blood-stained urine was collected. The capsule of the kidney had been completely torn across by the kick, and the blood and urine had evidently collected in the loose tissue around the kidney and between the fragments. A drainage-tube was placed in the wound for a few days and the boy made a complete and uneventful recovery. The father wrote under date Nov. 10th: "The boy is very well and seems quite strong."

Remarks by Mr. OWEN.—The features common to these two cases are fulness in the renal region and persistent

[1] Martin: Revue des Maladies de l'Enfance. June, 1895.
[2] THE LANCET, Oct. 20th, 1894, p. 910.

vomiting. Taken together these symptoms are more than suggestive. As there was some doubt as to the nature of the tumour in the first case it was approached by abdominal section. It could, of course, have been removed with equal ease by the loin without opening the peritoneum; but when there is room for doubt as to the nature of a tumour in the renal region the operator does well to make himself master of the situation by opening the abdomen through the median or semilunar line.

The second case is instructive in that it shows that though a child's kidney is broken right across it does not necessarily demand removal. Probably the actual rent was so far below its equator that the urine secreted by the chief part of it was eventually enabled to find its way along the ureter. And I think that it would be well in all cases of nephrotomy for ruptured kidney in children to give the gland and its duct the off-chance of rearranging matters to the physiological advantage of the individual. If persistent lumbar fistula gave evidence that the injury was such as to be wholly beyond the reparative power of nature, nephrectomy could be resorted to.

VICTORIA INFIRMARY, GLASGOW.

A CASE OF EXTENSIVE CARCINOMA OF THE STOMACH FOR WHICH JEJUNOSTOMY, AS MODIFIED BY MAYDL, WAS SUCCESSFULLY PERFORMED.

(Under the care of Mr. A. ERNEST MAYLARD.)

FOR the notes of the case we are indebted to Dr. Weir, resident house surgeon.

A man, aged fifty years, was admitted to the Victoria Infirmary, Glasgow, on May 7th, 1897. At the beginning of March of this year the patient began to feel himself becoming gradually weaker and rapidly losing flesh. Except these symptoms he noticed nothing until a month previously, when he began to vomit his food. The ejection was frequently preceded by an attack of severe coughing. Often in the morning and just after rising and before his breakfast he would vomit a few mouthfuls of clear, watery fluid quite bland in character. No blood appears at any time to have been seen in the vomit or in the stools, which he stated were perfectly natural. Until recently he had felt no marked pain in his stomach, but he had entirely lost his appetite. On admission to the hospital he was seen to be a sallow-complexioned man; he was much emaciated and much enfeebled. He complained of pain in the region of his scapulæ, but he stated that his worst pain was felt when he took food. So much suffering did this cause that he preferred to desist from any attempt. On examination of the abdomen a swelling was seen on the left side of the epigastrium which was hard to palpation, quite painless, rounded in shape, and moved slightly with respiration. The dulness on percussion was continuous with that over the liver. It was found that by a careful regulation of the diet it was possible for him to take food without it being vomited, nevertheless its ingestion was always accompanied with pain. A test breakfast was administered, and the gastric contents when removed were examined by Günzberg's method for hydrochloric acid, but no reaction was obtained. Endeavours were made to wash out the stomach, but the tube caused so much irritation that the attempt had to be abandoned. Nutrient enemata were administered every four hours and one was given just prior to the operation.

The operation was performed on May 18th with the assistance of Dr. Grant Andrew and Dr. Weir. A median incision was made above the umbilicus, and after opening the general peritoneal cavity a digital examination of the stomach was made. It was then found that the organ was extensively implicated, the greater part of the body consisting of a hard nodular mass of tumour tissue. An attempt was first made to bring up the duodenum with the object of performing duodenostomy, but this not being possible Maydl's method of performing jejunostomy was proceeded with. The operation lasted one hour and ten minutes and was not followed by vomiting. The patient rallied well. On the second day peptonised milk was given by the abdominal wound, and this was repeated every three hours. The administration of nutrient enemata was also continued. A marked diminution of the tumour was observed on the fourth day. On the fifth day a good motion passed; for the first time also there was regurgitation of bile from the abdominal orifice. A little fluid nourishment was given by the mouth, and this appeared to cause no pain. On May 28th, that is, ten days after the operation, the patient confessed to feeling much better; his cough, however, was proving more troublesome, and whatever improvement had taken place in his gastric condition seemed more than counterbalanced by the trouble he was beginning to suffer in respiration. At times his cough was very troublesome. Considerable regurgitations of bile occasionally took place, and at times also the injected food was returned. On the eighteenth day after the operation the Murphy's button used at the operation to implant the proximal end of the divided jejunum into the distal segment was passed in the motions without causing the patient any discomfort. After this the patient's lung trouble continued to increase, his cough becoming persistent, until on June 8th he died just three weeks after the operation.

Necropsy.—At the post-mortem examination, which was made by the pathologist, Dr. Galt, the lungs were found to be extensively involved, the left being consolidated and in places gangrenous. On examining the stomach tumour tissue was found involving chiefly the lesser curvature, but extending from this on each side down to the greater curvature. Microscopical sections of the growth showed it to be colloid carcinoma; spaces were seen almost entirely filled with colloid material to the exclusion of cellular elements, although here and there existed well-marked groups of carcinoma cells. An examination of the parts operated upon showed perfect union between the two attached portions of the intestine. A well-marked canal existed between the united segments with no signs of any contraction.

Remarks by Mr. MAYLARD.—The operation of jejunostomy, as usually understood, resembles in its performance those other operations upon the alimentary canal which possess in their terminology a similar suffix; that is to say, it consists in fixing the viscus to the abdominal parietes and maintaining for a period, either temporary or permanent, a fistulous connexion with the outside of the body. Many different methods are employed in performing the operation, and the various modifications introduced have for their chief object the prevention of any escape of the contents of the bowel. Maydl, however, has so modified the operation that it almost belongs to a class of its own so much does it differ from those usually understood by the term jejunostomy. The operation known as Maydl's consists in first opening the abdomen in the middle line above the umbilicus and then seeking for the upper end of the jejunum; when this is secured it is brought out of the abdominal wound and divided. Another opening is made in the side of the distal segment into which the proximal is implanted. This union is effected either by stitching or, as performed in the above case, by a Murphy's button. The orifice of the distal segment is lastly stitched to the parietal wound (see diagram). A precisely similar operation has been

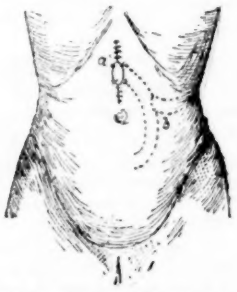


Diagram of Maydl's operation for jejunostomy. *a*, orifice of jejunum stitched to parietal wound; *b*, lateral implantation of upper segment into the side of the lower.

devised in place of gastro-enterostomy, the only difference being that the distal free end of the divided jejunum is planted into the stomach instead of into the abdominal parietes. The operation of jejunostomy, by whatever method performed, is only called for in extreme cases of gastric carcinoma, and it is therefore essentially an operation of expediency rather than one of necessity, one which aims at the relief of suffering for the comparatively short time that life is likely to last. From the point of view of relief given the present case seems one worthy of record, for the great suffering which the patient endured whenever nourishment was administered was entirely removed by the

giving of all food through the jejunal orifice. The stomach thus obtained complete rest, while the operation itself produced but slight temporary disturbance to the patient. However, although the patient constantly expressed himself as greatly relieved by the operation I confess I was somewhat disappointed at the regurgitation of bile which took place from time to time through the artificial orifice. This, I believe, was due to planting the proximal end of the jejunum into the distal segment at a point too near the orifice. In a second attempt to perform the same operation I shall endeavour to make the union some few inches further down. This will of necessity entail a more extended severance of the mesentery so as to admit of the required separation of the two cut extremities, for without such division it would be impossible to bring up the distal extremity to the surface of the abdominal parietes without drawing up also the proximal end. There was a point of considerable interest observed in connexion with the feeding of the patient. It was found that although food properly prepared and peptonised was freely given through the artificial orifice and retained the man seemed to be gradually getting weaker, more than could be accounted for from any other cause except that of insufficient nourishment. I thought it just possible that absorption and assimilation were not taking place owing to the want of bile and possibly pancreatic juice, and that these failed in being secreted owing to the absence of any normal stimulant conveyed through the usual channels of gastric ingestion. We therefore commenced giving a little bland liquid food by the mouth, and with the best results, for the patient soon showed signs of regaining strength. It was further noted that food so taken into the stomach no longer caused the acute pain it previously had. The temporary rest which had been given to the viscus by the operation had apparently been the means of allaying a good deal of its irritability.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Calot's Operation for the Immediate Reduction of Angular Deformity of the Spine.

A MEETING of this society was held on Nov. 26th, Mr. LANGTON, President, being in the chair.

The PRESIDENT read an English translation of the paper read by M. Calot at the last meeting, which was published in THE LANCET report of Nov. 20th.—Mr. MAKINS (honorary secretary) read some remarks which had been contributed by M. P. Rédard, of Paris, who was unable to be present. M. Rédard considered that the method was a very valuable one in certain cases and was convinced from his own experience in some forty cases that if reasonable precautions were taken it was effectual and free from risks. He pointed out, however, that all cases of Pott's curvature were not amenable to immediate reduction and he only advocated its use in those cases in which the reduction was easy and he deprecated its employment for the reduction of irreducible ankylosed curvatures. He held that neither size nor duration of the curvature was a contra-indication for the method but that all cases were suitable which were reducible with moderate force, and he was strongly opposed to rough or violent manipulations. M. Rédard sent photographs of the apparatus which he employed for the purpose of effecting reduction and which enabled him almost to dispense with assistance and avoided the necessity for the prolonged compression of the boss during the setting of the plaster. The exact amount of traction employed was indicated by a dynamometer. When applying the plaster jacket too thick a layer of cotton wool should not be placed next to the skin as it hindered the secure maintenance of the spine in position. He had met with no unpleasant results in any of his forty cases, but had observed indisputable correction of the deformity in many severe cases.

The discussion on the paper by Mr. Robert Jones and Mr. Tubby, adjourned from the last meeting, was then continued by Mr. WATSON CHEYNE, who said that he considered that the subject was hardly ripe for discussion as so short a time had elapsed since the operations were performed. Undoubtedly the results were satisfactory from an orthopædic point of view, but it must be remembered that in these cases the surgeon was dealing not only with a deformity but with disease. As regards the ultimate effect of the treatment on the diseased bone at this early period they could only fall back on general experience of the behaviour of tuberculous disease in bone. He admitted that the absence of serious accidents had surprised him, but a cure could not be said to have taken place unless and until firm bony ankylosis had occurred. Unpleasant consequences appeared to be less frequent than after similar interference with ankylosed tuberculous joints such as the knee. Spinal abscess was, however, very slow in developing and he would not consider that any of the patients operated on within the last few months were free from danger from this sequela. In order that the disease might be actually cured two things were necessary. First, the tuberculous tissue must have disappeared or become encapsuled and the conditions did not look favourable for this issue. One or several cavities would be produced filled with blood-clot, fragments of cancellous bony tissue, and cheesy material, conditions which would favour extension of the disease or formation of abscess. Secondly, ossification and consolidation must take place. As a rule, in contrast to what happened in acute necrosis, there was remarkably little new bone formed in tuberculous disease of bone. If an ankylosed tuberculous joint were examined it would be found that there was a very small surface united by bone most of the union being fibrous. He doubted whether bony union would occur anteriorly. Calot held that union would take place posteriorly, but although some museum specimens showed that this had occurred little trace of it could be found in recent cases. Some of the cases recorded by Calot and others had been reduced after the curvature had existed for periods of from six to eleven years, showing that even in this time firm ankylosis had not occurred under circumstances not less favourable than those after forcible reduction. He thought if the operation were performed at all it would be well to follow Calot's plan of freshening the adjacent edges of the laminæ of the vertebræ and uniting the periosteum at the same time. He did not believe that the results obtained by this method would be better than by double extension with weights followed by prolonged recumbency, improvement following even with a constant weight of eight pounds. He always adopted this plan before performing laminectomy which he believed was necessary in only a few cases. The method was absolutely on its trial and he considered that a sufficient number of operations had been done to test its value although several years must yet elapse before the ultimate effect on the cases which had been brought before the society could be estimated, and he thought that before any more cases were treated its effects on these early cases should be known.

Mr. BARWELL said that the mortality had been surprisingly small. He thought that some attempt would have been made to give some account of the effects on the bones as found at the necropsies on these fatal cases. The specimen shown by Mr. Murray at the last meeting did not satisfy him as he wanted to know the condition of the whole spine *in situ*. He considered that the method was in an experimental stage and that accurate judgment could not be passed on it for some years.

Mr. NOBLE SMITH said that he had seen several cases in which immediate reduction of bone was accidentally brought about and the results in those cases were such as to make him sceptical about the advisability of Calot's operation. The first case was that of a child who suffered from active caries the result of a fall and leading to the formation of a curvature. After eighteen months' rest he was able to get about, but he fell again and the ankylosis not being firm the curvature was straightened. The caries again became active and abscesses formed, the child dying three years later. The second case was that of a youth, aged sixteen years, who had a large rounded curvature. When the spine was forcibly extended the curvature was straightened out, but general tuberculosis ensued, and the patient died. The third case was that of a boy, aged seven years, who had extensive disease of vertebræ. He had adopted the posture of lying prone on his elbows and knees, which had the effect of straightening out the curvature. He died from tuberculous meningitis two years later and on examining the spine it was found to be united by bone anteriorly but this new bone was of such loose and friable quality that it entirely crumbled away when the bone was macerated. He

thought that the suggestion of Mr. Jackson Clarke that new bone might be thrown out from the anterior common ligament and help to fill the cavity was a very likely one. He showed an elderly woman suffering from caries in whom the deformity was practically reduced by wearing a suitable apparatus which had enabled her to resume her occupation.

Mr. JACKSON CLARKE said that of the two factors, the disease and the deformity, the former was of primary importance. The deformity tended to increase after the disease was checked owing to the adaptive growth of the healthy portions of the spine, which were "kinked down" at the diseased vertebra. For some time past he had used Chance's splint as an efficient means of arresting the disease. He had tried the method of immediate reduction in the case of a girl with a sharp angular curvature which had only existed for two months. The deformity was reduced without much force being used, a distinct crack of the bone being heard. A plaster cuirass strengthened by metal strips was then applied while the manual extension was kept up. The plaster jacket had to be removed after a few weeks and the curvature was found to have returned. Reduction by forcible extension was again performed and this time the spine was put up in an over-extended position. Five weeks later there was considerable diminution of the curvature and on extending the spine there was some slight cracking but no further yielding. The child was now going to have a Chance's splint with an occipital band to control the movements of the head. He thought that the splint shown by Mr. Jones confined the whole body too absolutely. He recalled one case in which there had been absolute fixation in such a splint for four years, but this did not prevent the formation of a boss, and the child's general health suffered. He thought that two years' fixation in such a splint would be a very serious thing for the child especially if any bronchitis occurred. He thought that the best plan was to employ fixation for three months and then apply a Chance's splint.

Mr. W. G. SPENCER said that the operation would allow the subsequent treatment to be commenced with the spine straight. It did not appear to offer any danger to life, and there was no evidence that any of the cases had been made worse. He thought that ossification would go on as well after this operation as before. Bone would probably be thrown out by the anterior common ligament. He did not think that the post-mortem specimen shown by Mr. Murray taught much. The gap which was shown might have been formed post mortem as it was empty, not even containing blood as would have been the case if it had been formed during life. He believed that these cases would be found to have ankylosed as firmly as cases treated by other methods.

Mr. COTTERELL said that he had operated on two cases. The first was that of a child who had been treated for dorsal caries and paraplegia for five months by rest without improvement. The curvature was relieved by forced extension in October and the paraplegia was rapidly passing off. In the second case an angular curvature was easily reduced, but while putting the jacket on the child stopped breathing and artificial respiration had to be resorted to. Undoubtedly the position required for the extension made things very difficult for the anæsthetist.

Mr. THELWALL THOMAS (Liverpool) considered the objections to forcible straightening of the spinal column to be based on a wrong reading of museum specimens, whose very existence depended—too often, alas!—upon inefficient treatment. The ordinary treatment of spinal caries never really prevented undue pressure of the softened bodies on each other, and it was easy to account for the large mortality which they all knew existed from abscesses and dissemination of tubercle, brought about by this constant grinding pressure. The theoretical objections that were raised to the new treatment—namely, (1) that paraplegia would result, (2) that abscesses would occur, and (3) that dissemination of tubercle would be brought about—had all been disproved so far and the only pathological item which remained now to be settled in the minds of some was what filled the "gap" assumed to be always produced by forcible straightening. The practice of surgery consisted almost entirely of making "gaps" which nature obligingly filled up (even after such proceedings as scraping tuberculous bone) and certainly they ought not to worry about that.

Mr. A. E. BARKER endorsed all that Mr. Watson Cheyne had said and agreed that it would be well to wait to see the result in the cases already operated on. He mentioned a case in which a fatal acute pleurisy followed the rupture of a spinal abscess when a patient was suspended in a tripod for the application of a plaster jacket and he thought that a similar accident must be expected in a certain proportion of the cases. He thought that the evidence was quite against the possibility of the new formation of bone in sufficient quantity to fill up the gap. M. Calot stood by the analogy between the ankylosed spine and an ankylosed knee and agreed that what would be bad for one would be bad for the other. Mr. Barker would anticipate extension of the disease if he attempted forcibly to extend a tuberculous knee, and he thought that that was the general experience of surgeons.

Mr. ROBERT JONES expressed his satisfaction that the subject had been so well discussed, even though some speakers had been pessimistic. He reminded the society that the object of the paper was to lay certain clinical facts before them in relation to the immediate straightening of spines which were at complete variance with traditional and present belief. In no case had abscess, dissemination of tubercle, or paraplegia followed reduction. Instead of producing paraplegia it had in several instances by relieving pressure on the cord cured it. Mr. Watson Cheyne had urged that when the backs were straightened they were not cured. The same argument might be applied to neglected deformities following tubercle in joints. Mr. Watson Cheyne and Mr. Barker deprecated the immediate reduction of tuberculous hips and knees. Mr. Jones constantly practised such reductions without any of the evils referred to following. The fatal character of Pott's disease was admitted and the difficulties of governing the deformity by mechanical means were so well known that some radical effort should be made to bring about a better state of things. When he first practised this method with a full sense of the responsibilities friends warned him of paraplegia, abscess, and dissemination. Now these dangers had proved groundless they were told to beware of the "gap." Had he feared the separation of bodies he had no right to operate upon a single case, but speakers who advocated the removal of intra-articular pressure in joints deprecated it in the spine which exhibited the strongest tendency to bony exudation. Fixation could be more efficiently applied to a straight than to a crooked spine, and prevention of the crunching of vertebræ from superincumbent weight should tend to firm and rapid union. He had just received a communication from M. Calot stating that he had patients walking without supports after the practice of immediate reductions, and in no instance did the spine "wobble." Such a fact should altogether dissipate the pathological fear. Mr. Tubby and he very cordially accepted the suggestion of the President to show cases when sufficient time had elapsed.

Mr. TUBBY said with reference to Mr. Murray's communication that gentleman had granted all the points of their argument but had then branched off into speculations and had spoken of the possibility of a "wobbly hump" resulting, as if such an event were likely, in the spine. He thanked Mr. Watson Cheyne for his criticism but wished to join issue with him on this point—viz., that the cure of the deformity and of the disease were entirely different. In dealing with tuberculous joints such as the hip and knee one object in treatment was to separate the parts and give them rest, and this was precisely what was done in the spine when it was straightened. Mr. Tubby added that he thought the reason why a diseased spine took so long in healing was on account of the want of complete rest. As to the disputed question of ossification taking place in the gap formed by reduction, certain specimens, notably one in the St. Thomas's Hospital museum and another bearing on the question in the Hunterian Museum were alluded to. In the first-named specimen ossification in, and filling up of, the gap had evidently occurred during the ordinary course of the disease the back having been kept straight. As to the plea uttered by Mr. Watson Cheyne and Mr. Barker that Mr. Jones and he would now withhold their hands, there was no reason for doing so. Abroad this treatment was still being extensively tried, 600 cases, according to M. Calot, having been operated upon in France and so long as no danger or undue risk was incurred he failed to see the necessity for reaping experience at second-hand.

HARVEIAN SOCIETY OF LONDON.

Hernia of the Abdominal Cicatrix and Operations for its Cure.—Empyema of the Antrum of Highmore.

A MEETING of this society was held on Nov. 18th, Dr. MILSON, the President, being in the chair.

Mr. ALBAN DORAN read a paper entitled Hernia

of the Abdominal Cicatrix and Operations for its Cure. This paper was given at length in THE LANCET of Nov. 27th. — Mr. BUTLER-SMYTHE congratulated his colleague on the success attending his efforts to relieve those women suffering from ventral hernia. Mr. Doran had his sympathy in that one instance where the hernia had returned after operation, but perhaps it might be some consolation to him to know that there was no surgeon living of whom it could be said that he had not had many such cases following his operations. He (Mr. Butler-Smythe) ridiculed the idea of operators stating "that they could not trace a single case of ventral hernia in their own practice." The fact was that when an operation for the removal of an abdominal tumour was unfortunately followed by a hernial protrusion, varying from the size of a walnut to that of a pouch reaching from the ensiform cartilage to the pubes and containing the greater portion of the abdominal contents, it was, to say the least, improbable that those patients would return to the original operator but rather would seek fresh advice. Ventral hernia would now and again occur no matter how careful the surgeon might be in the matter of closing the abdominal wound. In most of the cases read that evening it seemed that the hernia had occurred at either end of the abdominal scar, and this looked as if the closing of the upper and lower angles of the wound had been imperfectly sutured. In his opinion the chief point in sewing up the wound was to approximate the sheaths of the recti muscles as accurately as possible. Union of fibrous tissue was stronger and more permanent than that of muscle or skin. He was convinced that if attention were directed to the accurate suturing of the aponeurosis the chances of hernia would be greatly diminished.—In reply to Mr. Butler-Smythe Mr. DORAN remarked that the edge of the rectus muscle as well as its sheath should always be included in the suture whether the aponeurotic layer were united separately and continuously or simply closed by deep interrupted sutures passed through all the layers of the parietes.

Mr. E. W. ROUGHTON read a paper on Empyema of the Antrum of Highmore. He limited his remarks to those cases in which the ostium maxillare was patent and the symptom complained of was a discharge from the nose. The discharge was usually purulent, unilateral, intermittent, and affected by posture. An examination of the nose by speculum and light revealed pus in the middle meatus; after cleansing the nose pus reappeared when the head was hung down and towards the unaffected side. As aids to diagnosis he mentioned transillumination of the antrum, catheterisation through the ostium maxillare, percussion of the teeth, and exploratory puncture through the nose, alveolus, or canine fossa. He also insisted upon a careful examination of the teeth in the upper jaw. A carious first or second molar was a very common cause of empyema, but any tooth in the upper jaw might involve the antrum; it was also important to bear in mind that a tooth which was quite free from caries and to the ordinary observer apparently healthy might have an alveolar abscess at its root. The indications for treatment were—(*a*) removal of the cause by dealing with dental or nasal disease; (*b*) evacuation and drainage of pus; (*c*) antiseptic irrigation; and (*d*) removal of morbid tissue (when present) from the antrum. He advocated that an alveolar tube should be fitted in every case. In acute or subacute cases a cure would often be effected provided that the tube was of large calibre (at least an eighth of an inch) and that its upper extremity was on a level with the floor of the antrum. The length of the canal from the gum to the floor of the antrum could be best determined by means of a small *catheter à boule* used in the same way that it is used to measure the position and length of a stricture of the urethra. In chronic cases or those that resisted treatment by the alveolar tube for six months it was necessary to open the antrum through the canine fossa and thoroughly remove all morbid tissue found therein. The canine fossa operation should always be supplemented by an alveolar tube to facilitate drainage in the after treatment. He had had no experience of opening the antrum through the inferior meatus of the nose as he considered that there was no case which could not be effectually treated by the alveolar tube with or without the canine fossa operation. In some cases the nasal discharge continued after draining the antrum; attention should then be directed to the frontal sinus or fronto-ethmoidal cells.—Mr. LENNOX BROWNE remarked on the great improvement observed in the general health of patients who had been efficiently treated for empyema of the antrum.—Dr. SCANES SPICER had yet to see a complete cure of a case of chronic antral empyema by the ordinary irrigation tubes inserted through the alveolus. By that he meant—(1) permanent cessation of pus flow, bad smell in the nose, and pain; and (2) permanent removal of tube, no irrigation worries, and healing of fistula in a case of antral empyema of several months' or years' standing and in which the antrum was not merely a receptacle of fronto-ethmoidal pus. Anything short of this he could only regard as a very equivocal palliation, for, indeed, in many cases the irrigation apparatus aggravated discomfort by causing recurring acute sinusitis with pain and, further, the taste of pus was always in the mouth. He had known many cases that had endured this for years. After giving the alveolar tube methods a trial for years with the coöperation of the most skilful dentists he had been compelled to drop these methods as never successful in chronic cases such as chiefly came under his notice. At one time he had a large accumulation of these failures, many of which he subsequently submitted to the radical operation, and if the antral empyema were uncomplicated these had been completely cured, usually in a very few weeks. During the last eight years he had operated radically on well over thirty cases.[1] The points he regarded as essential for the success of the radical operation were (1) a large opening through the canine fossa; (2) thorough curettement of diseased antral mucosa; (3) very free counter opening from the nose into the antrum; and (4) no drainage apparatus (the air blast suffices to clear the antrum of pus until the mucosa is healthy). No bad results, certainly no disfigurement or sinking of the cheek, had occurred in any of his cases.—Dr. WILLIAM HILL had experience of cases in which an alveolus had been drilled and a tube inserted without marked relief, so that it was necessary to make an opening in the canine fossa and scrape out the antrum.—Mr. SEFTON SEWILL said that the operation of puncturing through the alveolus was a simple one and one which in conjunction with a permanent drainage apparatus was considered efficient treatment by distinguished surgeons.—Dr. DUNDAS GRANT spoke of the frequency with which the uncinate process of the ethmoid became diseased and led to accumulation of pus in the antrum. Such cases were purely nasal and demanded nasal treatment.

LIVERPOOL MEDICAL INSTITUTION.

Removal of Epithelioma from the Larynx by Thyrotomy.—An Account of Nine Operations on the Liver.—Ice-cream as a Vehicle of Infection in Typhoid Fever.—Details of the Clamp and Cautery Operation for Hæmorrhoids.

A MEETING of this society was held on Nov. 18th, Dr. RICHARD CATON, President, being in the chair.

Mr. BARK showed a case of Removal of Epithelioma from the Larynx by Thyrotomy. The patient was a man, aged forty-one years, from whom he had removed the right vocal cord, ventricular band, and arytenoid cartilage for epithelioma by thyrotomy. Hahn's tube was used for seven days. The patient made an uneventful recovery. The man had suffered from hoarseness for two years previously to the operation. There was now, eight months after the operation, no sign of recurrence. He had a strong though hoarse voice.—Dr. HUN drew attention to the duration of the disease and said that it was not unusual for a malignant papilloma to remain quiescent for some years causing no symptoms except hoarseness. He preferred to remove Hahn's cannula immediately after the operation on account of the risk of septic pneumonia.—Mr. RUSHTON PARKER mentioned a case of thyrotomy where he had removed Hahn's tube immediately but had been obliged to re-introduce it later.

Mr. RUSHTON PARKER read notes of Nine Operations on the Liver. Three were for abscesses, four for hydatids and two were cases of gall-stones impacted in the ducts. All were successful. In one case of hydatid, punctured less than twenty-four hours before extraction of the cyst, universal peritonitis had resulted. There were vascular injection of the peritoneum and purulent effusion with large non-adherent flakes in the pelvis. This was treated by copious washing and by pelvic drainage through an additional suprapubic

[1] See Proceedings of the Laryngological Society of London, Proceedings of the West London Medico-Chirurgical Society, and Brit. Med. Jour.

incision. The desirability of avoiding puncture of hydatid cysts except when the operator is prepared to remove the cyst immediately and certain features in the diagnosis of hepatic abscess were dwelt upon.—Dr. BRADSHAW wished to emphasise the fact that the absence of pyrexia for longer or shorter periods by no means excluded hepatic abscess. In the third case of Mr. Parker's series the temperature was normal or sub-normal during the five days that the patient was in hospital before the operation. The abscess when opened was found to contain three pints of pus. The diagnosis was based upon a history of tropical diarrhœa, pain in the right shoulder, tenderness in the region of the liver, and remarkable enlargement of the organ in an upward direction.—Mr. PAUL said he used the aspirator for hydatid of the liver in children and had met with several cures. In both abscess and hydatid he had had the misfortune to meet with cases in which a communication had been established with the bile-ducts previously to operation. They all ended fatally sooner or later. In reference to gall-stones he thought the question of recurrence extremely important. Apart from inaccessible stones left behind it seemed to be very rare.—Dr. E T. DAVIES thought the use of the exploring needle for diagnostic purposes was to be deprecated unless immediately followed by operation.—Mr. BANKS, Dr. FINEGAN, Mr. LARKIN, and Dr. O'HAGAN also made remarks.

Dr. E. W. HOPE read a short paper on Ice-cream as a Vehicle of Infection in Typhoid Fever. He spoke of the dangers of ice-cream as sold by the itinerant vendor. He had obtained some street-sold ice-creams and had submitted them to Professor Boyce for bacterial examination; these had shown an enormous number of sewage bacteria. Some cases of typhoid fever had been distinctly traced to ice-cream sold at a fair in a suburb of Liverpool. In the future the manufacture of ice-creams would be regulated in the same manner as the milk traffic.—Dr. HILL said he was engaged at the present time in an investigation into the micro-organisms of sewage. He was struck with the marked similarity between plate cultivations of the ice-creams referred to and those of sewage. It was difficult to distinguish between them both from the number and the nature of the organisms present, many being identical in character and appearance.—Professor BOYCE, Dr. BARR, and Dr. LOGAN also spoke on the subject.

Mr. BANKS read a note on the Clamp and Cautery Operation for Hæmorrhoids. He said that he considered the operation a good one and one which was permanent in its results. He also said that he thought Paquelin's cautery if properly cared for a most reliable instrument. He mentioned various small details which he had found useful to the patient in saving pain and to the surgeon in saving time and annoyance.—Mr. ROBERT JONES condemned the clamp and cautery as an implement not in accord with modern surgery; it possessed no advantages over cleaner methods. He had for some years practised a method of suturing hæmorrhoids which promoted rapid healing, rendered bleeding impossible, and saved the patient much pain. Dilatation of the anus should always be performed as a preliminary.—Mr. THELWALL THOMAS had abandoned the cautery for years and now treated hæmorrhoids by clamp, removal of excess, and suturing the stump with a crossed and reef-knotted stitch. The operation was painless and uneventful. Patients were out of bed on the sixth or seventh day. Hæmorrhage could not occur. Forcible stretching of the anus was always used as a preliminary.—Mr. PAUL supported Mr. Banks's contention that properly carried out the operation by clamp and cautery was the most safe, effective, and permanent cure for hæmorrhoids.—Mr. RUSHTON PARKER thought the principal aid to operation and painless recovery was the stretching of the anus.—Mr. BANKS replied.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Nov. 17th at the Medical Institute, Birmingham, Mr. J. W. TAYLOR, President, being in the chair.

The following gentlemen were elected members of the society: Dr. H. E. Thompson, Dr. C. K Millard, Dr. R. W. Briggs, Dr. W. Lamb, and Mr. G. Leonard Hill.

Mr. HEATON showed a girl, aged seven and a half years, whose Left Elbow-joint he had Excised eighteen months previously for extensive tuberculous disease of the joint complicated by peri-articular abscesses. Excision was performed in the usual way. Passive movements of the joints were commenced on the fifth day. At the present time the child could use the arm almost as well as its fellow. The movements of flexion and extension were perfect, but there was some limitation in the power of pronation and supination.

Dr. FOXWELL read a paper on Colitis and showed a married woman, aged thirty-nine years, sent to him by Mr. J. S. Crabbe in illustration of his remarks. In July, 1894, the patient had severe urticaria after taking some tinned rabbit. This was followed by diarrhœa accompanied by tenesmus. This became much worse in November, 1894, and was accompanied by two or three severe hæmorrhages. She was confined to bed for ten weeks and was told that she had typhoid fever. In January, 1895, the diarrhœa ceased and her bowels became irregular and had so continued ever since. The stools were either lumpy and scybalous or else there was diarrhœa. She still passed a good deal of mucus and sometimes the stools resembled the white of an egg. Blood only occasionally appeared, but there was constant tenesmus "even when it was diarrhœa." The patient's bowels had been blocked three times; on the second occasion the obstruction was serious and an operation for its relief was contemplated. Occasionally she could not pass urine for more than twenty-four hours, at other times she had done so every five minutes. She has always been subject to sick headache but had had much more during the last three years. She had lost strength but was fairly nourished and could manage her household duties. There was a dyspeptic redness about the face and the tongue, though clean, was too red. Dr. Foxwell brought her forward as a typical case of non-amœbic colitis; the bowel irregularity, the stools, the fæcal obstruction, the increase of "biliousness," and the acute exacerbation ("typhoid") being all typical of the disease.

Mr. JORDAN LLOYD showed a Suppurating Cyst of the Left Broad Ligament with gaseous contents removed successfully from a woman, thirty-five years of age, about four months after a premature confinement. Her illness began about a week after delivery with multiple joint pains, and as these subsided an abdominal swelling made its appearance without much pain but with irregular septic temperatures. She became anæmic and prostrate, but would not consent to operation until nearly two months after the pelvic swelling had been found and diagnosed. Mr. Lloyd called particular attention to the fact that the tumour was tense and gave a tympanitic percussion note and even when first cut into had the appearance of a distended intestinal coil.

Dr. KAUFFMANN showed a set of specimens of Syphilitic Lesions in the Liver, Lung, and Shoulder-joint, all from the same patient. In the liver there were numerous small gummata, not exceeding a split pea in size and of characteristic appearance to the naked eye and under the microscope. In the lung the lesion took the form of an extensive mass of white fibrous tissue of great denseness, forming a stout solid mass evidently peribronchial in origin and spreading in a radiating manner into the lung tissue. In the shoulder-joint the lesion was considered during life to be of tuberculous nature and this opinion was borne out by the appearance of the joint when opened after death. The clinical points in which the joint conditions differed from the tuberculous suppurative disease were the comparative absence of pain considering the amount of swelling and destruction and the wide ramifications of the abscess along the lines of tendon sheaths in the neighbourhood.

PLYMOUTH MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A CLINICAL meeting of this society was held on Nov. 20th, Mr. J. E. SQUARE being in the chair.

Dr. FOX showed the following cases:—1. A man, aged forty-two years, in whom Jaundice had suddenly appeared three months previously after a sharp attack of pain. The gall-bladder was distended and the liver was enlarged. It was decided to explore the gall-bladder. 2 A man, aged about forty years, with Obscure Nervous Symptoms most pronounced on the right side. An Argyll-Robertson pupil was noted on the right side and absence of the knee-jerk in the right leg. The ankle of this side had developed (after an injury) large masses of new bone from the

lower epiphyses of the tibia and fibula and a thickened elastic condition of the synovial membrane. The joint was not at all flail-like nor did there appear to be any fluid in it.

Mr. WOOLLCOMBE showed a man from whom, for Epithelioma of the Penis with enlarged inguinal glands on both sides, he had removed the entire penis, scrotum, and testicles, bringing the urethra out in the perineum. Both inguinal regions were cleared of glands by means of two horizontal incisions radiating from the central one. The operation was rapid,—it left a wound with no pouches to delay healing—was thorough, and was not followed by any severe shock or mental disturbance.

Mr. J. E. SQUARE showed a girl, aged twenty years, with a Thickened Conjunctival Fold in the Outer Canthus of the Right Eye, from which grew a hair.

Mr. C. E. RUSSEL RENDLE showed a child, aged nine years, who had been a well-marked Cretin but under thyroid extract was rapidly losing the characteristic signs and symptoms.

Mr. ALDOUS showed a boy, aged thirteen years, with a round, raised, and partially pedunculated Swelling three-quarters of an inch above the red margin of the left Upper Lip. The surface was red and crossed by numerous dilated capillaries and exuded a thin, purulent, and sometimes bloody fluid. Beneath the jaw were two or three enlarged and hard glands. About the base of the tumour there was no trace of induration. Three weeks ago the sore was twice the size. He regarded it as a chancre and was treating the case with mercurial inunction. Various opinions were expressed as to its being of sebaceous origin—molluscum, nævoid, &c.—and a cessation of treatment was advised.

Mr. WHITEFORD showed a youth, aged eighteen years, with Syphilitic Sloughing of the Soft Palate and Adhesion of the remains to the Pharynx and Naso-pharynx almost occluding the posterior nares, causing bad phonation and deafness.

Mr. RYAN showed a woman, aged sixty-two years, with nodules of varying size from that of a pea to that of a hen's egg beneath the skin of the Face and Neck, some of ten years' duration. The largest had rapidly grown after a blow three months previously and the skin over it had become discoloured. He regarded them as sarcomata. Other members thought them lipomata and the large one to be undergoing nævoid degeneration.

The following specimens were exhibited:—

Dr. WEBBER: (1) A large Multilocular Ovarian Cyst; (2) a Tongue removed from a woman, aged forty-two years, for Epithelioma; and (3) a Uterus removed per vaginam for early Cancer.

Mr. WOOLLCOMBE: Fourteen Calculi removed from a Kidney. The largest weighed two and three-quarter ounces and the whole number five and a quarter ounces. The patient made a good recovery.

Mr. ALDOUS: Primary Scirrhus of the Head of the Pancreas obstructing the common duct and causing Jaundice.

Dr. BUSHNELL: A slide of Diphtheria Bacilli.

GLASGOW SOUTHERN MEDICAL SOCIETY.

Exhibition of Cases.

A CLINICAL meeting of this society was held on the 18th inst. in the Victoria Infirmary, Dr. JAMES W. ALLAN, President, being in the chair.

Dr. EBENEZER DUNCAN showed a case of Diabetes under treatment with Uranium Nitrate. This drug was introduced into medicine by the homœopaths who got good results with it, probably by using large doses of it. Dr. Samuel West recently brought the drug before the profession.[1] Dr. Duncan made brief reference to his Montreal paper.[2] Since then two cases had been under treatment one—the case shown—being a man who had been ill for eighteen months and having 26·25 grains of sugar per ounce in the urine when admitted to hospital. Beginning with a dose of 5 grains it was gradually increased to 10 grains, when the dose had to be diminished to 7½ grains on account of diarrhœa and then again increased to 10 grains, which dose the patient was then taking with comfort and decided benefit. Previous careful treatment by opium and codeia had made an improvement up to a certain point, relapse immediately following when this treatment ceased. The patient had much improved in health and strength. Sugar was absent from the urine and polyuria and the other distressing symptoms were entirely relieved. The remedy was harmless; no nephritis or gastritis was produced. Diarrhœa might easily be avoided by using a pure salt, reducing the dose if it threatened, and avoiding over-eating. The usual dietetic treatment was adhered to, but all the patients had an abundant supply of milk—two or three pints per diem. The other case mentioned was that of a child who came into the ward feeble and passive but improved so much under this treatment that he became strong and active and so unruly and unmanageable that he had to be dismissed. Dr. Duncan was of opinion that the remedy had a stimulating effect on the sugar-producing cells either directly or through the nervous system.

Dr. DUNCAN also showed a patient who had suffered from a Syphilitic Gumma of the Brain. The patient was a woman, aged forty-nine years, who complained of weakness of the left arm and slight aphasia. There was no weakness in the lower limb. Headache was present. Ophthalmoscopic examination showed congestion of the discs and filling up of the congenital cup. There was a clear history of syphilis dating twenty years back; the patient had had seven still-born children and had had attacks of Jacksonian epilepsy involving the affected limb. Perchloride of mercury and iodide of potassium were given. Then the iodide alone, beginning with a 10 grain dose and pushed to 130 grains three times a day. The signs of the disease quite disappeared but cardiac symptoms developed under the large doses. Nitrite of sodium in doses of 2 grains afforded marked relief from the anginal attacks.

Dr. DUNCAN further showed a case of Chronic Rheumatic Arthritis treated by baths (Schott system) and salophen in gradually increasing doses of cod liver oil, and described various forms of Valvular Disease of the Heart—Enlarged Heart improved by Bath treatment; Double Aortic Disease; and Graves's Disease.

[1] THE LANCET, Aug. 10th, 1895, p. 356.
[2] Brit. Med. Jour., vol. ii., 1897, p. 1044.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Pneumonia a Multiple Infection.—Pityriasis Rubra.

A MEETING of this section was held on Nov. 19th, Sir G. F. DUFFEY, President, being in the chair.

Dr. J. W. MOORE read a paper entitled Pneumonia, a Multiple Infection, in which he adduced evidence that the micro-organisms peculiar to erysipelas, to influenza, to tuberculosis, and to enteric fever may one and all give rise to a specific pneumonia or pneumonic fever. So also may Löffler's diphtheria bacillus and the bacillus of malignant anthrax as well as other pathogenic bacteria. There is clinical evidence to show that a true pneumonitis may occur in any one of the four diseases—erysipelas, influenza, tuberculosis, and enteric fever; and if it is objected that Eberth's bacilli have not as yet been often found in the lungs or sputum of enteric fever patients this is probably due to the comparative infrequency with which so far search has been made for these bacteria in the pulmonary organs.—Mr. HENRY CROLY said that he had for twenty-four years been familiar with pneumonia as a complication of erysipelas.—Dr. J. W. MOORE, in reply, said that in influenzal pneumonia the specific organism of pneumonia was not often present but the streptococcus pyogenes.

Dr. J. B. COLEMAN read a paper on Pityriasis Rubra, and exhibited a patient suffering from the disease, a man, aged twenty years, who was admitted to the Whitworth Hospital on Nov. 4th, 1897, suffering from general redness and scaling of his skin and from some itchiness. The eruption appeared suddenly last May in the shape of redness on the back of his hands and wrists and within a week his whole body was red and scaly. He had not previously suffered from any form of skin disease and had enjoyed excellent health. The appearance of the affection was attended with no general symptoms. He never had syphilis, but there was a history of alcoholism and of exposure to cold and wet. His family was free from any gouty, rheumatic, or phthisical taint. On admission to hospital he was fairly well nourished though of slight build and he enjoyed good health except for the condition of his skin. He felt chilly when he went out of doors and at night he was troubled with itching. His lungs and heart were healthy, his appetite was good, and his temperature was normal. He had marked leucocytosis, the

white corpuscles being increased to 37,000 per cubic millimetre. The eosinophile cells were also relatively increased, constituting 10 per cent. of all the white cells. The urine was normal; the bowels were confined. The axillary and inguinal glands were moderately enlarged. The skin all over his body was dull red in colour and covered with thin papery scales; it felt hot, rough, and dry; he never sweated. The redness faded on pressure and left a yellowish hue. The scales varied in size from branny desquamation on his face to larger flakes as big as a sixpenny-piece on his back and limbs. The scales were thin, whitish, easily separated from the subjacent skin, which was red, but neither moist nor infiltrated. During the earlier months of the disease the scales were larger, and every morning about a pint of scales and powdery detritus was found in his bed. Some of the nails were thickened and loose, whilst others were thin and long. The scalp was covered with whitish-yellow matted scales and the hair was falling out. The epidermis on the palms of the hands was thin (as if newly-formed) and superficially cracked; the skin of the soles was thicker and desquamating. When the skin on the flexor surface of the arms and on the sides of the neck and trunk was relaxed it was covered with fine ridges and furrows which were replaced by red linear streaks when the skin was made tense. The diagnosis of the case, as an example of Hebra's type of pityriasis rubra, depended on the onset of universal redness of the skin, associated with loosely adherent, thin, papery scales and on the absence of thickening, moisture, or of any primary lesion.—Dr. WALLACE BEATTY said that on looking at Dr. Coleman's case for the first time one might think that it was one of generalised seborrhœa, but the history must show that it was a case of pityriasis rubra.—Dr. FINNY said that there were in this case symptoms which he had not seen in any case of pityriasis rubra—namely, great thickening of the scalp with a great quantity of scales and with alopecia. The patient also had to scratch himself and he (Dr. Finny) thought that this was one of the peculiarities wanting in pityriasis rubra as there was generally no itching at all.—Dr. COLEMAN, in reply, said that neither some thickening of the skin nor itching were sufficient to upset the diagnosis of pityriasis rubra; in fact, in some of the very chronic cases a considerable amount of thickening of the skin had been found. Itching had also been noticed in cases now and then as a prominent symptom although not a common one.

Reviews and Notices of Books.

The Dwelling House. By GEORGE VIVIAN POORE, M.D., F.R.C.P. Lond., Physician to University College Hospital, London: Longmans, Green, and Co. Price 3s. 6d.

THE main object of this book is to advocate the adoption of the dry method of sewage disposal in preference to water carriage and many of Dr. Poore's arguments have much force. He is an excellent debater and the position he takes up is very strong if not impregnable, but by selecting extreme cases he arrives in one or two instances at some rather startling results. In one case in the opening chapter he reproduces certain plans of the first of two typical London houses examples of which were published in THE LANCET.[1] The various evils, both sanitary and constructive, commonly met with in town houses had been concentrated in this example, for purposes of illustration, though it is to be hoped that few houses exist actually in such evil plight. Had Dr. Poore taken the second example in this report to demonstrate his argument against the excessive cost of existing sanitary methods, his calculations would have more nearly approached a correct average, and his arguments, though apparently robbed of a little force, would have been just as sound.

Dr. Poore is ingenious in his indictments. He holds that the water carriage of sewage and the high pressure system of water supply tend to overcrowding by facilitating the erection of enormously high buildings to the exclusion of sunlight and of the free circulation of air, the result being damp, gloomy houses and streets filled with the exhalations from sewer gratings and drain ventilators. His remarks upon overcrowding, its causes and its effects, are emphasised by some very unpalatable but reliable statistics, and the Building Acts and by-laws under which model dwelling-houses are constructed (?) come in for their share of censure. The central idea of modern municipalism, in Dr. Poore's opinion, is the raising of loans and the sweating of the ratepayers.

That the water-carriage system is essentially an artificial one is evident and in common with every unnatural process is surrounded with special elements of danger. In London and other great towns existence is, however, more or less artificial throughout. Water as a carrier has obtained such a hold upon public favour and vested interests are so involved in its maintenance that however desirable a change might be there is at present little prospect of any alteration in our larger towns. Dr. Poore appreciates this position, but points out the extreme folly of taking the system of building and the sanitary methods prevalent in London as models for country towns and villages where the environments are altogether dissimilar and where the expedients to which the metropolis has been driven are quite uncalled for. Water carriage for sewage Dr. Poore designates as "spending our money to dissipate our capital" with the added risk of poisoning our water-supplies. He insists upon advantage being taken of the recently discovered fact that the first few inches of cultivated soil alone can break up and assimilate organic matter, the subsoil having no such power. Whatever is buried deeply or escapes from drain or cesspool below the protecting layer of living earth may retain indefinitely its original character and immensely increase the risks of pollution. He recommends the use of the dry earth closet so that the whole of the effete organic matter may be promptly returned to the surface of the land. This closet is not the usual pail closet met with in so-called dry methods in which the urine and fæces mingle but a special arrangement, devised by Dr. Poore, illustrations of which are given.

If a dry method of dealing with sewage were employed the subsoil water, being unpolluted by leaky drains and cesspools, could under such circumstances (as Dr. Poore points out) be collected in properly constructed shallow wells, and thus local water-supplies could be formed. He believes that such local supplies would be preferable, as the putting of all sanitary eggs into one basket which has led to disaster at Maidstone, Lynn, and elsewhere would then be avoided. We are not sure that such local supplies would be an improvement, for they would not receive the same supervision that ought to be, and is supposed to be, given to one main and central supply. The book describes in detail and illustrates the various means to be employed for the disposal of slop water and fæcal and other organic waste. The results of some experiments of filtering urine through sawdust are particularly interesting, as also is the chapter upon the circulation of organic matter and the effect of manure upon garden *humus* under varying conditions of temperature and moisture. Dr. Poore aptly views our modern sanitary methods as savouring "too much of Hercules and too little of Minerva."

Certainly the constantly recurring epidemics should cause rural authorities to pause before adopting, often at vast expense, a system or systems of dealing with their sewage for which in some cases there is no absolute necessity. The reason why former attempts at dry methods have often proved so discouraging is that the systems adopted have not been in conformity with natural laws. Dr. Poore has not only devoted many years to the study of the question but, and this is of equal value, he has superintended its practical application.

With hundreds, nay, thousands, around us stricken down

[1] Report of THE LANCET Special Commission on the Relative Efficiency and Cost of Plumbers' Work, THE LANCET, July 4th, 1896.

by preventable diseases, the present subject cannot be dismissed with a few commonplace eulogies upon Dr. Poore's book. Worthing, Maidstone, Lynn, and Clifton are neither better nor worse than hundreds of other towns in which the elements of danger are present and are only waiting the moment of conjunction to develop similar or even worse disasters. Instead of passively following models that are not always good, and when good by no means always suitable, it surely would be better if sanitary authorities carefully investigated without prejudice every rational suggestion for the amelioration of existing dilemmas. Dr. Poore's book is an eloquent little plea for such practical open-mindedness.

Handbuch der Therapie innerer Krankheiten. Herausgegeben von Dr. F. PENZOLDT und Dr. R. STINTZING. Zweite Auflage. Lieferungen 1, 2, und 3. (*Handbook of Treatment of Internal Diseases.* Edited by Dr. F. PENZOLDT and Dr. R. STINTZING. Second edition. Parts 1, 2, and 3.) Jena: G. Fischer. 1897. Complete in seven volumes. Price 105*s.* by subscription.

THE first edition of this encyclopædic undertaking has been barely completed before we have to notify the issue of the first three "Lieferungen" of the second edition. The original publication appeared in somewhat piecemeal fashion, each "Lieferung" mostly containing portions of one or more of the seven bulky volumes that made up the whole work; but this re-issue will proceed in more regular fashion. The work opens with the subject of the Infective Fevers and measures of general prophylaxis are described by Dr. A. Gärtner and those of General Therapeutics by Professor von Ziemssen, Dr. Buchner writing upon protective inoculations. Amongst the special articles that on Small-pox and Vaccination by Dr. L. Pfeifer is most noteworthy; it contains a description of the author's discovery of protozoal organisms in variola. The subject of vaccination is fairly and thoroughly dealt with. In the discussion of other infectious diseases the serum treatment naturally receives much attention, Dr. von Ganghofner writing on Diphtheria and Dr. Th. Rumpf, of Hamburg, on Asiatic Cholera. The latter article is very full and contains much valuable information, the prophylaxis being especially dwelt upon. With regard to the treatment of Typhoid Fever (Professor H. von Ziemssen) cold or tepid bathing is strongly approved, the recommendation being made to commence the treatment in the early stages of the fever, the baths at first being tepid. The volume closes (in the third "Lieferung") with articles on the treatment of affections of the ear and eye arising in connexion with specific fevers. The second volume opens with such "disorders of metabolism" as corpulency, diabetes, and gout. The work is well-known and evidently much appreciated and the second edition brings the publication well up to date.

Reference Book of Practical Therapeutics. By Various Authors. Edited by FRANK P. FOSTER, M.D. In two volumes. London: Smith, Elder, and Co. 1897. Price £2 10*s.*

THIS is an elaborate work in two volumes containing a vast amount of information on practical therapeutics. The editor states in his preface that the leading idea in the preparation of this work has been to make it pre-eminently serviceable to the practising physician. It is not intended to take the place of treatises on materia medica or on pharmacy, hence as regards the physical properties of drugs, their mineralogical, chemical, botanical, or zoological relations, &c., the endeavour has been to set down only so much as is of direct bearing on the use of those drugs in medical practice or on the management of poisoning due to them. In all these matters the writers who have assisted Dr. Foster have been most successful. Even accounts of the physiological actions of drugs are condensed, for much of what the experimental pharmacologist justly looks upon as essential to the prosecution of his studies is useless and clogging superfluity to the physician in the daily work of treating the sick. For the same reason profusion of references to literature has been avoided. With one exception (Dr. Gordon Campbell, of Montreal) all the contributors are American.

The various drugs and methods of treatment are arranged alphabetically so that the work forms a dictionary very easy of reference. The articles are on the whole well written and the information full and reliable. For instance, the article on Cinchona, by Dr. Henry A. Griffin, of New York, is an admirable description of the various forms of cinchona barks and their uses. Another contribution—namely, that on Exercise, by Dr. Henry Ling Taylor—is also valuable, containing as it does a full consideration of the functions and needs of the neuro-muscular apparatus of the body and the importance of gymnastics and other forms of regular exercise in the training of children. A kindred subject, Massage, is ably dealt with by the same author.

Some of the articles, however, are written in rather too dogmatic a form. We may take, for instance, that on Hydrocyanic Acid by Dr. J. T. Whittaker. The effects of poisoning by this substance and the methods of treatment and antidotes employed in combating an overdose are certainly well described, but we think that general opinion would be against the following sentiments: "Hydrocyanic acid has little or no medicinal virtue and should, on account of its danger (*primum non nocere*), be banished from the shop of the apothecary and the pages of the materia medica. It had formerly a reputation as a sedative and was often prescribed, especially with morphine, for the relief of nausea and pain in the stomach. It is very questionable, however, if it possesses any such virtue."

A most interesting contribution is that by Dr. Austin O'Malley, of Washington, on Serum Therapy. Much care has evidently been expended in collecting the material needed and all the latest knowledge and experience in this newest branch of therapeutics are concisely recorded. The work certainly supplies a want and can be recommended to our readers.

LIBRARY TABLE.

Descriptive Catalogue of the Pathological Museum of St. Mary's Hospital. (Additions, 1891-1897.) By J. JACKSON CLARKE, M.B. Lond., F.R.C.S. Eng. Morton and Burt, Printers. 1897.—The value of a museum depends very largely upon the care which is bestowed on the preparation of a descriptive catalogue and Mr. Jackson Clarke is to be congratulated on the thoroughness and care with which the present addendum to the catalogue of the St. Mary's Hospital Museum has been prepared. Amongst the specimens described are many of great importance. No feature of our London hospitals is more striking to the foreigner than their pathological museums, and we have just reason to be proud of them, not only for their intrinsic value, but for the care which is displayed in the cataloguing and description of their contents. The present volume is clearly printed and well arranged and short clinical abstracts are in most cases appended to the descriptions of the specimens adding much to their value.

On the Employment of Itrol (Citrate of Silver) in the Treatment of Gonorrhœa. By Dr. O. WERLER. *On the Treatment of Venereal Ulcers with Itrol.* By Dr. O. WERLER. Berlin: S. Karger.—These are reprints from the *Dermatologische Zeitschrift.* The author claims that in gonorrhœa itrol has an intensely destructive effect on gonococci and that solutions of it are well borne by the urethra and cause neither irritation nor any increase of the inflammatory

symptoms, also that it has an energetic penetrating power without damaging the mucous membrane and that it therefore fulfils all the necessary indications for the modern treatment of gonorrhœa. In venereal sores he says that owing to its bactericidal energy, its desirable effect, and deep action it soon brings the destructive process to a standstill and rapidly reduces the chancre to the condition of a healthy sore. Dr. Werler says that it is absolutely without smell, makes a clear solution, and produces only slight smarting when applied. It is also very likely to prevent secondary affections of the inguinal glands such as virulent suppurative buboes.

Transactions of the Pathological Society of London. Vol. XLVII. London: Smith, Elder and Co. 1896.—The matter contained in the present volume of these transactions is sufficiently familiar to our readers to absolve us from the necessity of any detailed notice. The value of the communications shows no falling off in merit and the Transactions remain an indispensable work of reference for pathologists. The feature which strikes us as especially noteworthy is the great and increasing excellence of the illustrations which form so valuable and essential a part of the work. For this of course the many advances in the processes for the mechanical reproduction of photographs and coloured drawings are in part responsible but much credit is due to the enterprise of the Pathological Society in making such liberal use of them.

The Edinburgh Medical Journal. New Series. Vol. I. Edinburgh and London: Young J. Pentland. 1897.—The first volume of the new series of this well-known monthly periodical shows that its high standard of excellence is fully maintained. In spite of its title we note that a very fair proportion of its original articles are from the pens of writers south of the Border and indeed this is as it should be. A judicious admixture of writers from various "schools" should not only secure a wider circle of readers but also—and this is more important—act as a check to the tendency to exclusiveness which must inevitably beset the teachings of any particular school. Amongst the original contributions are many of a very high order of interest and importance. The reviews are by able and critical writers and the monthly accounts of recent advances in medical science are of great excellence. The volume as a whole is well printed and attractive and forms a valuable addition to a medical library.

The Leisure Hour still maintains its high standard of excellence and in the December part just issued will be found many articles of interest. The Science and Discovery ection is a useful one.

The current issue of the *Girls' Own Paper* contains several seasonable articles. There is also a full-page reproduction of a portrait of the late Duchess of Teck. The Christmas extra number of this publication *Christmas Chimes* will no doubt find, as it deserves to, a place at many a Yule ingle-side.

The Sunday at Home is full of good reading suitable for the purpose which the title of the magazine suggests. The frontispiece, "Nothing venture nothing have," is a good reproduction after the picture by Mrs. Alma Tadema.

DIARIES.

Messrs. Letts's Diaries (Cassell and Co.) are so well known and highly appreciated that it is scarcely necessary to do more than call attention to the fact that those for the new year fast approaching are now ready, and that, as usual, the series comprises books to meet almost every individual requirement, at prices varying from 6*d.* to 16*s.* The "Medical Diary" is ruled for noting obstetric engagements, vaccination, nurses' addresses, thermometrical and other fluctuations, monthly cash account, &c., and contains in addition much useful information expressly compiled for the profession. Another very useful publication of Messrs. Letts is the "Medical Prescription Copyist," by means of which prescriptions can be made out in a uniform style and a copy of each kept for future reference.

Messrs. Rudall, Carte, and Co., of 23, Berners-street, send us their *Professional Pocket Book and Hourly Engagement Diary.* The diary is divided into three parts of four months each, a convenient arrangement which reduces the size of the book to be carried, as of course only one part need be carried at a time. The three portions are contained in a neat leather case, and although the diary is primarily intended for the professional musician its arrangement will make it useful for any busy man whatever be his calling.

Analytical Records FROM THE LANCET LABORATORY.

SOLOIDS FOR USE IN GYNÆCOLOGY.

(BURROUGHS, WELLCOME, AND CO., SNOW HILL BUILDINGS, E.C.)

THE following formulæ have recently been adopted by Messrs. Burroughs, Wellcome, and Co. in soloid form. 1. Sodium biborate compound, each soloid containing 20 grains of sodium biborate and 10 minims of tincture of opium. 2. Alum compound, each soloid containing 15 grains of zinc sulphate and 15 grains of alum. 3. Zinc and tannin compound, each soloid containing 5 grains of sulphate of zinc, 10 grains of lead acetate, 2 grains of extract of opium, and 1 grain of tannin. In this last formula obviously the zinc sulphate will when the soloid is placed in water react with the lead acetate to form acetate of zinc in solution and a precipitate of sulphate of lead. The resulting zinc acetate would then yield a zinc tannin compound. The object of these soloids is to enable the practitioner to prepare solutions for irrigations in gynæcological practice.

FALONA.

(THE FALONA FOOD AND CEREAL CO., 15, SEETHING-LANE, E.C.)

Falona is described as a combination of dried vegetables and cereals. We found it to contain more than one cereal, but of the existence of vegetables we cannot speak. It has a very pleasant malty flavour and yields when suitably prepared an undoubtedly nourishing food. This appears from our analysis which is as follows:—Moisture, 10·88 per cent.; mineral matter, 2·11 per cent.; organic matter, 87·01 per cent. The organic matters consist as follow:—3·40 per cent. fat, 12·81 per cent. nitrogenous substances, and 70·85 per cent. carbo-hydrates. It is thus, in addition to the digestible character of the carbo-hydrates consequent chiefly on careful cooking, rich in fat and in mineral matter, the latter consisting largely of phosphates.

VINOLIA PRODUCTS.

(BLONDEAU ET CIE, MALDEN-CRESCENT, LONDON, N.W.)

According to our examination the Vinolia preparations consisting mainly of articles for toilette use afford distinct evidence of the endeavour of these manufacturers to use only innocent yet effective ingredients. This is the only point which interests us in regard to such preparations. We have not found a single injurious constituent in any one of the new preparations recently submitted to us. An enormous advance has been made in the preparation of soaps, hair-washes, powders, shaving materials, &c., during the last twenty years, a fact which has contributed not a little to the comforts and sanitary conditions of modern life. Of new preparations recently submitted to us we may mention three soaps respectively entitled "buttermilk," "lilac," and "heliotrope," each of

which carries its own distinctive yet delicate scent. They contain nothing but bland soap and are free from any resinous matters or trace of free alkali. Vinolia violet powder is very finely divided and in addition to this desirable condition is a harmless antiseptic. Another preparation worthy of notice is the Vinolia dry hair wash. It is of course a spirituous fluid which yields on evaporation a delicate lather but without stickiness. It is satisfactory to find that articles of the quality described may be obtained at quite a moderate figure.

DIABETIC BROWN BREAD.

(CALLARD AND CO., 65, REGENT-STREET, W.)

Despite the entire absence of farina and sugar in this sample it is pleasing both in appearance and to the taste. It is desirably moist and keeps for some days without getting stale. We have tested the bread thoroughly. It can hardly be distinguished from the ordinary brown loaf when partaken with butter or when toasted.

AMBER ALE.

(THE ANGLO-BAVARIAN BREWERY, LIMITED, SHEPTON MALLET, SOMERSET.)

The specific gravity of this ale proved to be 1010 observed at normal temperature. This is the first indication of a malt liquor of a light character. Further results confirmatory of the foregoing were as follow: alcohol, by weight 4·62 per cent. by volume 5·78 per cent, equal to proof spirit 10·13 per cent.; extractives, 3·95 per cent.; mineral matters, 0·26 per cent., containing abundance of phosphates; acidity reckoned as acetic acid 0·02 per cent. The ale possesses a delicate bitter taste and as the results show is of comparatively low alcoholic strength. It was in perfectly sound condition, of a pale colour, and free from objectionable preservatives. It therefore accords with the definition of pure beer—that is, a liquor brewed from malt and hops.

OKOL.

(THE SANITAS CO., LTD., BETHNAL GREEN, E.)

Okol is a creamy fluid mixing in all proportions with water and forming a milky mixture which has a very pronounced smell of coal tar acid derivatives. It is said to be non-poisonous when used with ordinary care which means of course that it is poisonous but very much less so than carbolic acid. It is decidedly alkaline to test-paper and on acidifying the fluid with hydrochloric acid the separation of oils is evident. In regard to its antiseptic and germicidal properties it compares favourably with allied preparations. According to Dr. Rideal this preparation is far more active than is carbolic acid in the same weight.

ONOMOSTO.

(THOMAS GRANT AND SONS, MAIDSTONE.)

As the title of this sparkling beverage would imply it is made solely from pure grape juice. This is fully confirmed by our analysis, which is not different from the results obtained with many high-class champagnes. It was as follows: alcohol, by weight 9·50 per cent., by volume, 11·79 per cent., equal to proof spirit 20·65 per cent.; extractives, 4·10 per cent.; mineral matter, 0·15 per cent.; fixed acids reckoned as tartaric, 0·63 per cent.; volatile acid reckoned as acetic acid, 0·07 per cent.; grape sugar, 3·58 per cent. The specimen contained no objectionable preservatives. Its flavour was of that agreeably dry character esteemed in champagne of good quality. It is evidently prepared with the greatest care or otherwise the delicate fruity and pleasantly acid flavour of the juice of the grape would not have been so successfully retained. As will be seen from the above analysis the wine is of the same alcoholic strength as champagne. The small amount of acidity both free and fixed is another commendable feature. It is a sound exhilarating beverage and pleasantly sparkling and compares favourably in regard to its pleasing qualities with similar sparkling but much more expensive wines. It is quoted at 24*s.* per dozen champagne quarts.

New Inventions.

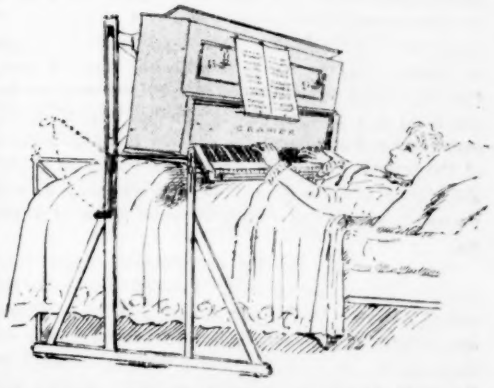
A NEW VAGINAL TUBE.

WITH a view to improving on the red gum-elastic tube that is almost universally used for vaginal douching I have devised one that is intended not only for simple hygienic self-douching, but which will be found to be of considerable advantage under all circumstances where it is necessary to apply antiseptic solutions to the walls of the vagina. The tube is seven inches long and rigid; its "business" end is bulbous, sufficiently so to allow facile introduction and withdrawal, yet of such size as will dilate each portion of the vagina as it is passed. It can be made of vulcanite or any rigid material that will bear the action of solutions. Those made for me by Messrs. Arnold and Sons are of vulcanite. The bulbs are of three sizes, the largest being used after parturition or where the vagina is particularly roomy. This form of tube may be manipulated into each fornix freely and fearlessly, and however clumsy a patient or nurse may be no harm can possibly be done to the parts. Rigidity enables the manipulator to douche out all folds, even if the size of the bulb is not of itself quite sufficient. The end is bulbous in order to dilate each successive portion of the vagina as it is passed, though it permits a ready outflow behind it, while complete collapse of the vaginal walls takes place upon the thin stem so that no air is admitted. The holes are made at the extreme end of the bulb and not on the periphery. The small end is made to fit the ordinary bone rectal tube that accompanies all enema syringes.

Buckhurst-hill. HAYDN BROWN.

A PIANO FOR INVALIDS.

THE illustration which we give below sufficiently explains itself. Messrs. Cramer and Co. are the designers of the small portable piano which thus slung from a frame across the patient's bed enables the bed-ridden musician to pursue



his or her art. We are indebted to Dr. Frederick Spicer, of Devonshire-street, Portland-place, W., for the sketch which we reproduce and think it probable that many invalids may like to avail themselves of the opportunity afforded by this little instrument of whiling away weary hours.

THE LANCET.

LONDON: SATURDAY, DECEMBER 4, 1897.

THE outspoken series of articles on the subject of the abuse of hospitals contributed by our Special Commissioner shows the prevalence of hospital abuse throughout the provinces while the same evil is rampant in London, where deception is rendered easier by the immense size of the population. London has not only its own special liabilities to hospital abuse but it is the refuge of those who find abuse not so easy to practise in provincial towns. Such people, usually of a somewhat mean nature to begin with, find an easy excuse for themselves and others either in the supposed importance of their cases or the just charges of their local physicians and surgeons for transferring themselves to a London hospital where the operation or the advice that would cost them a reasonable fee in their own town is to be had for nothing. This is the essence of the forbidding story that our Special Commissioner has told with wonderful consistency despite its variety of illustration and we are glad to notice a very general feeling that "something must be done." The Hospital Sunday Fund, instigated by a report of its Distribution Committee, has after long delay and hesitation determined to face the out-patient question and at the annual meeting of its constituents will ask for a rule enabling it to regard the presence of an efficient officer to inquire into the fitness of out-patients as a "merit" in a hospital. This is perhaps a very small remedy for meeting such a gigantic evil but it is a step in the right direction, while those who have pressed for some action must now watch its efficiency and report in case of any defect. The Charity Organisation Society has been indefatigable this year in keeping the subject of hospital abuse in the out-patient departments to the front. There may be some differences of opinion about the details of a Central Hospital Board for the guidance and assistance of individual hospitals, but one thing is sure—that will be the best form of central authority which interferes least with the individual freedom of the separate institutions while correcting gross abuses. Friendly and effective coöperation must take place between the hospitals if existing troubles are to be alleviated in this way.

Other influences bringing our hospital system under revision must not be overlooked. Amongst these is the fact that of late years the working classes have made material contributions to our medical charities—both hospitals and dispensaries. In some towns—for example, Birmingham, Newcastle, and Sunderland—the proportion of these contributions to the whole expenditure has become considerable. This is as it should be. But out of this circumstance has arisen a new demand quite clearly unjust. The demand is, in plain English, that the contributions of the working classes shall constitute a claim to attendance—in other terms, that the word "charity" shall be deleted from the vocabulary of hospitals and that everybody who has contributed a few pence or a few shillings in some more or less systematic way to the fund for the support of hospitals and dispensaries shall be entitled to a *quid pro quo* in the form of treatment for any and all ailments that may befal him or his family. This demand must be sternly resisted. A workman's contribution to medical charities no more entitles him to personal treatment than the subscription of the Duke of WESTMINSTER to St. George's Hospital entitles his Grace, his family, and servants to treatment as in- or out-patients of the hospital. To argue the contrary would exhibit a desire to convert our hospitals into provident dispensaries and give a mean character to subscriptions meant for the benefit of those who are the subject of exceptional disaster or disease. If the claim to make the hospital an open surgery for everybody who likes to go and who has paid a few small fees to its support is to be allowed it requires little foresight to see that the generous gifts of the unselfish will be promptly withdrawn in favour of other charities that restrict themselves to helping those who need help—those people, in fact, whose benefit was originally contemplated by the founders of hospitals.

The most memorable fact in hospital history during the Diamond Jubilee year is one which promises to have lasting influences on the hospital system—we mean, of course, the PRINCE OF WALES'S Hospital Fund for London. The kindness of the PRINCE'S nature and the beneficence of HER MAJESTY'S reign could have no better illustration than the one supplied by the PRINCE OF WALES'S Hospital Fund. As the time approaches for the dispensing of the Fund all friends of sound hospital charity have become deeply interested in the principles that will be employed in the distribution. We venture to believe that the PRINCE OF WALES and his Council may be safely trusted to see that no fantastic experiments and no crude theories will be sanctioned in connexion with this Fund. It is the outcome of the joint loyalty of the rich and the poor. Both must be credited with equally unselfish motives in their contributions. As a means of lightening the burden of real hospital work—work done for the genuine poor—the Fund will be invaluable but as an object for new-fangled experiments it may be worse than useless. The PRINCE OF WALES may do as much good by insisting upon principles of distribution in accordance with his own good judgment as he has done by the creation of the Fund itself.

SIR RICHARD THORNE'S inaugural address to the Midland Medical Society on Soil and Circumstance in their Control of Pathogenic Organisms, which appeared in THE LANCET of Nov. 6th, will have been read, we know, with particular interest, coming as its views do from the highest official sanitary authority in the land. To put the matter shortly Sir RICHARD THORNE points out that places and persons equally show a predisposition to, or immunity from, certain diseases; in other words, that specific infections continue to retain their vitality in certain localities so that diseases are found to haunt these spots. "I have known," he says, "a house standing in large grounds to be smitten with enteric

fever on three different occasions, the disease affecting in succession three different sets of tenants; and although between the second and the third occurrence the dwelling had been untenanted for nearly two years yet the disease reappeared amongst the new tenants within a few weeks only of their occupation of the dwelling." We may feel perfectly sure that all the ordinary defects of drainage and water-supply were absent in this house, for otherwise Sir RICHARD THORNE would not have adduced the instance as proving anything; but in view of the two years' rest given to the polluted environment it would be interesting to learn the results of a bacteriological examination of the soil.

To examine the soil to find bacteriological reasons for epidemic diseases is an eminently practical proceeding and we learn from Sir RICHARD THORNE that Dr. SIDNEY MARTIN has been conducting a series of such experiments for the Local Government Board, his attention being specially directed to the power of certain sterilised soils to maintain the vitality of the bacillus typhosus artificially implanted into them. The result of Dr. MARTIN'S experiments with these soils is that in a soil "organically polluted" the bacillus typhosus not only lived for over nine months but increased; while in two samples of virgin soil, one peaty and the other sandy, the vitality of the bacillus extended to twenty-three days at the utmost. Of course the conditions under which these experiments were made do not exist in nature, but the results are none the less suggestive, and we see no difficulty in admitting the possibility that the bacillus typhosus may live in soil even in the presence of millions of saprophytic enemies. Sir RICHARD THORNE uses the words "organically polluted" to apply particularly to soil sodden with the soakings of midden privies such as are common in the tiny back yards of the midland towns, and we do not gather that he anticipates any danger from an open field which is richly manured and skilfully and properly tilled. He says: "Where open spaces about dwellings are large, and where organic pollution of surface soil is practically absent, we may rely, as inhibitive of this bacillus, on the influence of sunlight and of alternating weather; but in our towns the conditions have become too artificial and the open area about dwellings has become too restricted for us to hope that, under the unnatural conditions which have been induced by urban aggregations of dwellings, we have any right to expect the full benefit of nature's remedies." It is to be hoped that Parliament will some day see the folly of allowing houses to be built in such a way that the necessary befoulings which are part and parcel of our existence have no chance of being remedied by natural processes. Dung of all kinds should go to the soil, but there seems to be some danger of this common fact being forgotten in the present day.

WITH the prospect of a meeting of Parliament at an early date next year the question of a Teaching University for London is again being actively revived. The scheme for a reconstitution of the existing University so that it might be at the same time an Imperial Examining Board, as it is at present, *and* a teaching university to satisfy the needs and aspirations of the London students and their teachers, was given up by the Government last session in consequence of threatened obstruction. The scheme was introduced too late and abandoned too quickly. The Government cared little about it and only introduced it because of the recommendations of the Cowper Commission, yet the necessity for a teaching university in London is so obvious and the educational advantages to be derived from its establishment are so great that we wonder at the apathy towards the movement that was displayed by the Government as well as by the London citizen and his representatives in Parliament. For fifty years attempts have been made to establish such a university in London—one whose teaching character should not deprive it of Imperial functions. In 1857 the degrees of London University were thrown open to all persons resident in the United Kingdom without reference to their place of education or to attendance upon any regular course of instruction except—an exception of vital importance at this moment—to persons intending to graduate in medicine for whom a very definite course was, and must be, laid down. In 1863 the Charter was still further widened so that the University had power to confer degrees upon all persons whether resident in the United Kingdom or abroad, but again medical degrees were made the subject of exception, a definite course of medical education being absolutely laid down. In the next year Convocation appointed a special committee to draw up suggestions for the University to undertake teaching functions and from that date to the present the controversy as to teaching and examining or examining alone has been going on.

Twenty schemes for the settling of the question have been fruitlessly brought forward and the twenty-first has been submitted to us and other journals recently for consideration. This latest scheme aims at obtaining the grant of a Charter for a proposed "University of Westminster" in every way separated from the University of London. The new university is to be a metropolitan teaching university whilst the existent institution is to continue its duties as an Imperial Examining Board. The plan of two universities in London—one teaching and examining and the other examining only—was the central idea in the Albert or Gresham scheme, which scheme did not obtain the favour in Parliament which it had met with before the Privy Council and was finally thrown over by the Cowper Commission. We can quite see the conveniences of the plan which provides for two universities and comprehend the view which considers it the real and proper solution of the question but we think that the proposed "University of Westminster" would follow its "Gresham" predecessor into the abyss of lost causes if any attempt were made to carry its academic proposals into reality. It would therefore, to our thinking, serve no practical purpose to discuss the scheme in detail but its promoters—all, we believe, medical men—have done good service by their action for every action is useful that accentuates the needs of the London medical student. It is vital to the London medical student that the same facilities should be given to him that are given to the medical students of other great cities for obtaining a medical degree.

The Duke of DEVONSHIRE, speaking on Tuesday night last at the anniversary dinner of the Royal Society, expressed

his hope and trust that at no distant date the Government might be able to make proposals and submit measures for—among other things having an educational bearing—the creation of a teaching university in London. The Duke of DEVONSHIRE is a highly responsible statesman, and we believe that we can read into his words a guarantee that when the Bill dealing with the reconstitution of London University is introduced into Parliament the time chosen will not again be the last moment of the session. We would therefore ask the promoters of the "Westminster University" scheme to be very chary of doing anything that might be or appear to be in conflict with the Government's action for this might lead to another shunting of the whole question. The provisions for the promotion of a Faculty of Medicine are far more satisfactory in the "Westminster University" scheme than are those in the University of London Bill of 1897 and might with advantage be introduced as amendments to that Bill.

Annotations.

"Ne quid nimis."

"WALLACE-ISM."

AT an inquest held not very long since the jury returned the following verdict: "The deceased man died from cardiac failure produced by a poisonous dose of aconite contained in a bottle labeled Wallace's specific, No. 1." As a sequel to this finding the Treasury instituted a prosecution against Wallace, who is described as "a homœopathic practitioner." Upon conviction he was fined in all £20 12*s.* for selling a poisonous drug to a person not known to him without inquiry, without entering the fact of such sale in a book, and without being a chemist registered for the sale of such drugs. On that occasion Dr. Luff, one of the official analysts to the Home Office, deposed that an ounce bottle contained $\frac{1}{17}$th gr. of aconitine, and that a sixth part of an ounce might prove fatal. On Nov. 12th a second Treasury prosecution also resulted in a conviction and the sum total of the fines amounted to £62 16*s.* The so-called "Specific No. 1" is a patented medicine, prepared according to the specification which was submitted to the Patent Office on March 3rd, 1897, and accepted on May 1st, 1897. In this specification the following statement occurs: "It [the invention] consists of a new method of preparing a watery alcoholic tincture of any part of the plant called aconite, which shall retain its curative physiological properties without the greater part of its toxic elements. The chief poisonous alkaloid or principle of aconite is aconitine, and by the method of preparation hereinafter to be described its toxic properties are wholly, or in great measure, eliminated whilst its curative value remains." For the defence it was alleged that the method of preparation ensured the destruction of aconitine or its being broken up into comparative harmless substances, and in support of this contention direct evidence was given by Mr. Wynter Blyth, public analyst to the parish of St. Marylebone, who stated that as a result of his analysis he found 0·09 gr. of an alkaloidal residuum from an ounce bottle of the specific, that this residuum had a bitter taste, and reduced the salts of silver, characters not possessed by aconitine. He concluded that the residuum was a mixture of benzoil-aconine—a very small portion of *aconitine* and a little aconine. There was about $\frac{1}{1000}$ gr. of aconitine in the one-ounce bottle. The results of Dr. Luff's analysis varied from those of Mr. Blyth to a singular degree. From an ounce bottle examined in January, 1897, he extracted $\frac{1}{17}$ gr. of aconitine. From an ounce bottle analysed in July, 1897, he obtained $\frac{1}{25}$ gr of aconitine; whilst from a like quantity of the "specific" made by him according to the specification the yield of aconitine was $\frac{1}{70}$ gr. Dr. Luff has had almost unrivalled experience in the study of the chemical nature and other properties of aconitine and his official position is a warranty of his scientific attainments and reliability. It is, moreover, remarkable that the results of his three analyses should have so closely coincided, the quantity of aconitine to the ounce varying only from $\frac{1}{70}$ to $\frac{1}{17}$ gr. As there is no known trustworthy chemical test for aconitine Dr. Luff resorted to physiological experiment. He found that $\frac{1}{1000}$ grain of the alkaloid extracted from the contents of the ounce bottle of the "specific" killed a mouse in eighteen minutes with the symptoms of aconitine poisoning. To check the results of the experiment he at the same time injected into another mouse of the same weight and the same species the same weight of ordinary aconitine. The animal succumbed in the same time and in like manner as the other. It is not necessary to call into question the results obtained by Mr. Blyth to prove the accuracy of Dr. Luff's deductions. It is quite possible to accept both as substantially correct. Such a course would, however, lead to the conclusion that the contents of the different bottles of the "specific" varied enormously, and to a degree which showed that no reliance could be placed in the alleged composition of the contents of a particular bottle offered for sale to the public; that in fact the so-called remedy can be looked upon in no other light than as a mixture dangerous to human life. To contend that the Patent Office approved of the specification, and that, too, without objection from the Pharmaceutical Society, goes for nothing in extenuation. The patent was granted on the assumption that the mixture did not contain the poisonous properties of aconite, and any inaction on the part of the Pharmaceutical Society cannot be taken even as a tacit admission of the harmlessness of the "specific." The public need protection and we heartily congratulate the Home Office on their thorough exposure of a miserable piece of quackery and illegality.

ABUSE OF MEDICAL CHARITY IN THE UNITED STATES.

AN American correspondent writes to us: "The question of dispensary and hospital abuse is being raised again in New York City. Although by the refusal of the governor of the state to sign the Bill presented in the spring of this year for the purpose of remedying the existing condition of affairs the hoped-for reforms received a set back it is tolerably certain that this will be but temporary. A very large majority of the medical practitioners of New York are in favour of a radical change in the methods of conducting the hospitals and dispensaries and are determined to leave no stone unturned to gain their object and there can be no doubt but that their efforts in this direction will be crowned with success. On the other hand, it may be said that there is no real desire on the part of the managers of the hospitals and dispensaries to remedy the evil; in fact, it is to their advantage that the present system should continue, so that it is practically a fight between the hospital boards on the one side, who wish things to remain *in statu quo*, and the outside practitioners on the other side, who desire reform. There is a similarity and at the same time a wide difference in the abuse prevailing in the hospitals of London and New York, and this statement can be further applied to such institutions in America and Great Britain in general. So far as the dispensaries and the out-patient departments of the hospitals

are concerned the grievances of the medical men in both countries are almost identical—in fact, the conditions in this respect are more or less alike in all the large towns of the civilised world. It is in the internal economy of the hospitals that most of those in the United States differ so widely from those of Great Britain, and the abuses rampant in the in-patients' departments of the two countries are of a totally different nature. In Great Britain people sponge on the charity of the in-patients' department in the same way as they do upon the out-patients' department and the dispensaries. That is to say, persons who can afford to pay for medical attendance pose as paupers and under that guise receive the benefits of a charity intended only for the poor. In the United States, on the contrary, the hospitals for the most part having no income from invested property are compelled in order to keep their wards open to charge the majority of their patients. Some, indeed, are even too poor to admit any but those who can pay, hence there is a disposition to conduct these institutions on a wholly commercial basis and to make charity play but a secondary part. The question asked of a would-be inmate is not how poverty-stricken he is but how much he can afford to pay, and room can seldom be found for a non-paying patient when there is the opportunity of receiving a paying one. To such lengths has this pay system been carried that it is at the present time a serious and growing scandal. Some of these hospitals appear to be fitted up rather as medical and surgical boarding-houses than for the purpose for which they were originally intended. Rooms in them are let at rents from £3 to £10 weekly. The most galling feature in connexion with this system to the medical profession is that the hospital medical officers cannot claim payment from these rich patients and in many instances are compelled to do the extra work for little or nothing, so that what should be their legitimate fees are diverted from the medical staff and the general practitioner is in a worse case as he gets neither advertisement nor money."

SMOKE IN SALFORD.

MANCHESTER and Salford, more especially the latter, suffer much from black smoke and though efforts have been made for many years to prevail upon the authorities to insist on its diminution both towns are still grievously afflicted. It is difficult to convince corporations that smoke is an evil and to induce them to make any earnest efforts for its abatement. Even in these days the amount of smoke is looked on by many as a measure of the activity of trade, and it is more than tolerated on the plea that too much interference would drive industries out of the town, the fact being forgotten that the smoke itself puts great difficulties in the way where any of the numerous occupations requiring cleanliness are carried on—such as the manufacture and manipulation of light and delicate fabrics. It is pleasant, therefore, to know that the other week a deputation from the Manchester and Salford Sanitary Association and the Smoke Abatement League was well received by the Mayor of Salford, when a memorial was presented which stated that it was thought the time had come when "more active steps should be taken by your health committee in the suppression of the smoke nuisance"; that on account of "undue indulgence" the air of Salford was more polluted than that of Manchester and that the latter suffered from Salford smoke over which it had no control. The memorial urged the assimilation of the Salford procedure in respect of the smoke nuisance to that of Manchester. It was signed by Professor Leech, chairman, and by the honorary secretaries of the Sanitary Association, and by Mr. Johnston, chairman, and Mr. Fred Scott, general secretary, on behalf of the Smoke Abatement League. Professor Leech spoke of the great difference between Manchester and Salford as to the regulations concerning smoke and of smoke being one of the factors in bringing about the "frightful mortality" which still prevailed. Mr. Johnston, as an engineer of many years practical experience, said there was no difficulty in dealing with smoke without any injury to manufacturers. Dr. Hutton dwelt on its injurious effects in cases of phthisis and chest diseases and said it was a painful thing to tell people whose livelihood depended on their employment in the great towns that they must live elsewhere. Mrs. Hopwood, of Hopwood, who has been remarkably energetic and successful in her own neighbourhood in efforts for the diminution of the smoke nuisance, said that in Middleton, Castleton, Heywood, and Chadderton there had been great improvement. "One Chadderton manufacturer had thanked her for saving him £12 per week in coal." The rector of St. Stephen's, Salford, spoke of the "enormous quantity of soot for ever falling and finding its way into every part of his house." The deputy mayor (Sir Richard Mottram) and the mayor (Alderman R. Husband) expressed their sympathy with the object of the deputation, but the former mentioned the difficulties of small manufacturers in the matter of boiler expansion, and said that "if smoke prosecutions were pushed too far they would drive manufacturers out of the borough." He did not say that they would so reduce the price of gas as to make it economical to use gas engines or that they would do all they could to favour the use of electricity as a source of power, and yet it is pretty evident that the extended use of gas or electricity promises the best solution at present known of the problem how to carry on manufacturing processes with the least possible pollution of the air. But it is something to have the sympathy instead of the hostility of the corporation in this effort to make Salford in the future brighter and healthier than it is to-day.

THE QUESTION OF THE IDENTITY OF YAWS AND SYPHILIS.

IN 1891, in a preface to Mr. Numa Rat's essay on Yaws, Mr. Jonathan Hutchinson expressed his well-known opinion that the disease was simply syphilis, though modified by race and climate. In THE LANCET of Feb. 13th, 1897, we gave a brief summary of his reasons. Though he has enforced this view repeatedly with his usual dialectic skill and command of facts it does not appear to be accepted by any one who has observed the disease in life. Mr. Hutchinson has of necessity had to take his facts from descriptions and portraits. In the *Indian Medical Gazette* for October Dr. A. Powell presents forcibly the case against Mr. Hutchinson's views. His statements are based on an outbreak of yaws which occurred in Assam. They appear to be the result of careful observation but exemplify the confusion which still exists on the subject. For while the colonial surgeons unite in the conclusion that yaws is not syphilis they contradict one another on fundamental facts. Thus Dr. Powell denies that a primary ulcer ever occurs as stated by Mr. Rat. In the majority of cases a papule first forms which develops into a granuloma, exactly similar to those of the general eruption. Again, he has never seen the tertiary lesions alleged by Mr. Rat, though almost all his cases have remained under observation since 1890. In reply to Mr. Hutchinson's query, "Are there many cases in which it is impossible to decide whether the symptoms are due to syphilis or yaws"? he states that he has never seen such, and that there is no disease—not even small-pox—more definite than yaws. In the secondary stage of yaws in 130 cases he never found the throat affected. But his most powerful argument is the coexistence of yaws and syphilis in the same patient. He observed in two cases of well-marked yaws typical attacks of syphilis—indurated chancres, buboes, symmetrical ulcers of the tonsils, and a macular

and roseolar rash. In both the syphilis yielded to mercury whilst the yaws persisted. There are but few cases of this kind recorded. Mr. Hutchinson has admitted that these cases have caused him to suspend his judgment. But as they are so few he asks for corroboration. On the other hand, beyond explaining its infrequency in Europeans from their different habits, Dr. Powell makes no attempt to deal with one of Mr. Hutchinson's most powerful arguments that yaws can be nothing else than syphilis. How is it that such a very contagious malady, of prolonged duration, to which white as well as coloured races are liable, never comes to Europe? On the whole we consider that the weight of evidence is against Mr. Hutchinson's view. But he seems to have established that the diseases are very closely analogous and that yaws may be exactly simulated by a rare form of the secondary eruption of syphilis—the framboesial; also the modified view which he has suggested, that yaws may be the parent stock from which European syphilis has sprung, but that the two, by long transmission in different races, have become modified, deserves attention. But proof or disproof of this seems to be impossible.

OTITIS MEDIA FROM SWALLOWING A PIN.

THE passage of foreign bodies into the Eustachian tube and tympanum is one of the curiosities of medical literature. In his classical work on the ear Politzer cites the two following cases. A patient was chewing oats and a husk stuck in the throat and wandered up the Eustachian tube and through the tympanum to the external meatus. During the use of the nasal douche a piece was broken off the vulcanite syringe which reached the tympanum, caused acute inflammation, and was removed by incision of the membrane. In the *New York Medical Journal* of Oct. 30th, 1897, Dr. Hoover has published the following case. A child swallowed a pin; no symptoms except sore throat followed. After two months she complained of pain in the left ear which was somewhat relieved when a discharge commenced. On examination a small perforation was seen below the handle of the malleus. In using a pledget of cotton-wool it caught in something. A probe was introduced and a small object could be felt. The opening in the membrane was enlarged by incision with a Graefe's knife and again something was felt with the probe which could be moved. With an alligator forceps a small pin about a quarter of an inch long was seized and removed. The child completely recovered in a fortnight.

THE CLINICAL VALUE OF THE WIDAL TEST.

WHEN Ehrlich's diazo test was first introduced as an aid to diagnosis in doubtful cases of typhoid fever it was believed that a most valuable addition to other confirmatory tests for that disease had been secured. Further experience showed, however, that its value was not nearly so great as was predicted. Although doubtless of use in some cases in others the presence of the reaction is misleading and it frequently cannot be obtained until other phenomena, such as the appearance of the eruption, place the diagnosis beyond all doubt. The Widal test seems likely to have a similar history. The earlier reports were all in its favour, but later investigations tend to show that it often cannot be obtained in doubtful cases afterwards proved to be typhoid fever. It is too early yet to come to any positive conclusion, but as all evidence on either side is important we draw attention to a paper on the subject by Dr. W. Gilman Thompson, of New York, in the *Medical News* (New York) for Oct. 30th. His conclusions are drawn from an examination of 503 cases, 157 being undoubted enteric fever. He remarks that the Widal test is unquestionably ingenious and it constitutes a most instructive and suggestive bacteriological demonstration, but he asks, Is it more than this? Is it of genuine, practical, diagnostic value to the clinician? The great majority, fully 75 or 80 per cent. of cases of typhoid fever, need no confirmatory test beyond the plain history and symptoms and the remainder, in which such a test if accurate and exclusive would be invaluable are chiefly (1) cases of enteric fever seen very early in the course of the disease, principally in private practice; (2) cases of obscure sepsis; (3) severe or protracted cases of malarial remittent fever; (4) certain cases of typhus fever and of acute miliary tuberculosis; and (5) various atypical forms of enteric fever. Dr. Thompson might well have added cases of influenza which frequently simulate typhoid fever having an acute onset. With regard to the earliest day of the disease at which the reaction has been distinctly observed it must be admitted that the reaction may be obtained toward the end of the first week, although the reported tests which would confirm an earlier diagnosis are few and uncertain. Dr. Thompson gives a summary of his results thus: 1. While the test is positive in the large majority of cases of enteric fever and negative in the greater number of other diseases there is a margin of error of 11 to 12 per cent. on each side of what might be called the normal line between cases in which the test fails where it ought to succeed and succeeds where it ought to fail in order to make it of real clinical value. 2. This total of 23 per cent. of possible error includes unfortunately just those cases in which there is the greater doubt upon the purely clinical side. 3. As a genuine diagnostic aid the test has about the value of the diazo reaction in typhoid urine or the study of leucocytosis in pneumonia—that is, it is confirmatory in connexion with appropriate symptoms but misleading if positive reliance be placed upon it. 4. The fact that an expert bacteriologist is required to make the test is offset by the ease of transportation of specimens of dried blood which long retain the power of reaction, and it is greatly to be hoped that further possible improvement in technique may place this most ingenious test upon a firmer practical basis than can at present be claimed for it.

CONGRATULATORY DINNER TO SIR WILLIAM GOWERS.

ON Nov. 25th the Society of Medical Phonographers gave a dinner to their distinguished president, Sir William R. Gowers, Sir William H. Broadbent occupying the chair. Among the guests were Mr. Rudyard Kipling, Sir William Thomson (Dublin), Sir Henry Howorth, Professor Bonney, Mr. Reed, the well-known phonographer, and others. The existence of this society is entirely due to the energy and perseverance of its present head, Sir William Gowers, and the members decided to hold a dinner to congratulate him on the recent honour which Her Majesty has been pleased to confer upon him. The honorary secretary, Dr. Nell, presented an illuminated address indicating the indebtedness of the society to Sir William Gowers' fostering care and expressing admiration of his qualities as a distinguished man of science. The chairman in proposing Sir William Gowers' health referred to his published works translated into nearly all European languages as marking an era in the history of diseases of the nervous system. Besides "his own original contributions to our knowledge, he has taken up knowledge wherever it is to be found—he has taken up what we may call the raw material working that out into a piece of beautiful texture." Referring to Sir William Gowers' paper on the Dynamics of Life he characterised it as "one of the most thoughtful, one of the deepest and most interesting, pieces of work" that he had ever perused. In replying, Sir William Gowers gave a short history of his life as a student and pointed out that it was to his knowledge of shorthand he attributed his success in his professional career. Because of

his ability to use phonography he was appointed private secretary to Sir William Jenner, which appointment prevented his accepting a partnership in a practice at Bournemouth. This proved to be the turning-point in his life. The toast of the visitors was proposed by Dr. Neil in a felicitous speech and replied to by Mr. Rudyard Kipling, Sir William Thomson, Sir Henry Howorth, Rev. Dr. Jessop, and Mr. Reed. No author has more medical readers than Mr. Kipling. His breeziness, romanticism, and virility are exactly the qualities that commend him to us. It was therefore with great pleasure that we learned from his lips his excellent opinion of "the doctor."

ENGLISH RECOGNITION OF ITALIAN SCIENCE.

OUR Rome Correspondent writes:—"The Cambridge Philosophical Society has just nominated as honorary member an illustrious leader of one among the 'auxiliary forces of medicine,' Signor Augusto Righi, Professor of Electro-physics in the University of Bologna. Professor Righi is in excellent company the Cambridge Philosophical Society having also conferred the same honour on M. Ludwig Boltzmann, Professor of Theoretical Physics in the University of Vienna, and Professor Mendelejev, Professor of Chemistry in the University of St. Petersburg, the distinguished Russian chemist. Hitherto only two Italians have been similarly honoured, the celebrated mathematician, Francesco Brioschi, Director of the Polytechnic Institute at Milan, and Luigi Cremona, Professor of the Higher Mathematics in the University of Rome. Professor Righi has recently made many important studies on the nature of those electro-static waves so brilliantly utilised by the young Italian physicist, Signor Marconi, for his 'telegraphy without wires.'"

AN ACTION FOR MALPRAXIS IN DENTISTRY.

AN action has recently been heard in Manchester in which a man sought to recover damages for malpraxis against an unregistered dental practitioner who, it was alleged, had fractured the jaw of the plaintiff in the process of extracting some teeth and, as a result, much unnecessary pain was caused and a certain amount of necrosis supervened. Evidence on behalf of the plaintiff was given by the plaintiff himself, two medical men, and a properly registered dentist, while for the opposite side the defendant, two medical men, and a member of the Victoria Dental Hospital gave evidence. The plaintiff obtained £50 damages. This case affords another glaring instance of the way in which the public fail to be protected by the Dentists Act from the unregistered practitioner and shows in a forcible manner that more energetic measures should be taken by the Legislature to see that the Act does not become a dead letter. A question of ethics is also raised by this case—namely, the propriety of the giving of evidence on behalf of unregistered practitioners by registered medical men and dentists. This is always a regrettable position for a medical man to find himself in, though we do not forget that such evidence can be compelled by subpœna.

REFRACTION AND GLYCOSURIA.

AT the meeting of the American Ophthalmological Society in May Dr. Risley read notes of two cases of Diabetes in which diminution of the glycosuria was attended with a curious result—loss of refractile power and *vice versâ*. Thus in a man whose urine was of the specific gravity of 1050 the glycosuria and thirst disappeared under nitrate of uranium and his general health improved. But his vision grew rapidly worse and it required an addition of 4 D. to restore it to normal. The glycosuria reappeared and the refraction was again increased so that his glasses had to be reduced by the 4D. Dr. Risley endeavoured to explain these changes of refraction by the theory that the indices of refraction of the media of the eye were affected by the sugar or other elements. In the *New York Medical Journal* of Oct. 2nd Dr. C. Prentice has discussed the question. He rightly points out as an objection to this theory that an opposite result should be expected—a lower state of refraction with a higher specific gravity of the urine and *vice versâ*. He suggests that the low refractive state was induced by a cessation of ciliary innervation (from what cause he does not state), and that with this there was depression of the renal nerve centres to irritation of which the glycosuria was due. He states that for some years he has followed the practice of lowering ciliary innervation by over-correction with stronger convex lenses and prisms than are required for vision in cases of diabetes, and thereby has produced diminution and even disappearance of glycosuria, of thirst, and of polyuria. Dr. Risley's observations bear the stamp of accuracy and deserve investigation. But what shall we say of Dr. Prentice's theory? If glycosuria is ever caused by disturbance of any particular centre it is the hepatic and not the renal. There is no proof whatever that such disturbance is an irritation. But granting so much, we must now make another, and almost incredible assumption—that diminution of the action of the ciliary centre, produced by wearing a pair of spectacles, could so profoundly modify this glycosuria centre as to restore it to its integrity. Finally, in Dr. Risley's cases there was no over-correction of vision to start this wonderful process. But let us not be too severe, for are not other branches of medicine permeated by these nerve-centre explanations which are only assumptions?

ASCARIDES PRODUCING SYMPTOMS OF TYPHOID FEVER.

THE production by round worms of a state resembling typhoid fever has not, as far as we know, been noticed in this country; but in France it has of late years attracted the attention of several writers and its reality cannot be doubted. "Lumbricose à forme typhoïde" is the subject of an article by Dr. A. Chauffard in the *Semaine Médicale* of Nov. 27th, 1895, and more recently of a Thèse de Paris of M. Tauchon. The matter did not escape the observation of the older French writers, for, as Dr. Chauffard points out, his case was typically one of "la fièvre putrido-vermineuse" described in 1770 by Lepecq de la Clôture. The latest contribution to the subject is an article by Dr. Pierre Marie in the *Journal des Praticiens* of Nov. 6th, 1897. In the beginning gastro-intestinal symptoms predominate; there are anorexia, fœtid breath, dyspeptic tongue, attacks of vomiting, and very marked tympanites. To these nervous symptoms are added headache, somnolence, and weakness, which may be followed later by hebetude; sometimes there is vertigo and even convulsions occur. Pyrexia is well marked but does not exceed 104° F. Usually the evening temperature lies between 102·2° and 103·1° and the morning temperature between 100·4° and 102·2°. The spleen is but little or not at all increased in size. Sometimes, as in typhoid fever, epistaxis occurs. On the other hand as points of difference there are no rose spots and no characteristic course of typhoid temperature. Dr. Chauffard's patient was a lad, aged eighteen years, who was admitted to hospital in a miserable condition with drawn features and sunken eyes, dry lips, stupor, and headache. There were general abdominal tenderness, gurgling in the ileo-cæcal region, and slight swelling of the spleen, all pointing to typhoid fever and this disease was in fact diagnosed. But it was noted that the tongue was not characteristic of typhoid fever, being large and flabby and red only at the edges, and that the breath had a strong odour of putrefaction. The temperature ranged up to 102·2° and repeated epistaxis occurred. On the fifth day after admission a

round worm was passed, on the eighth and ninth two were passed, and on the tenth one was vomited. Santonica was administered daily in doses of from one to two grammes and worms were passed in numbers—as many as twenty-eight in a week. After this the fever ceased, the patient gained weight, and convalescence was established. But the administration of the anthelmintic was continued and worms were passed though in smaller numbers for several weeks afterwards, in fact, as late as the end of the second month. How was it that the parasites resisted treatment for so long a time? Dr. Chauffard's explanation is as follows. Worms existed in the intestine in different stages of development and only the mature ones were affected by the vermifuge. As proof of this is the fact that they are never expelled except in this stage. Young ones have only been found in the intestine at necropsies. Moreover after each administration of santonica the ova disappeared from the fæces for two or three days and then reappeared.

THE CHOICE OF A TOBACCO-PIPE.

IF tobacco-smoking is justifiable at all on hygienic grounds it is generally conceded that the pipe is the least injurious means. But tobacco-pipes differ considerably in material and shapes, both of which must be important factors in determining the character of the smoke. Thus there is the clay, the meerschaum, and the various wooden pipes, the briar, cherry, or myall. Next to the tobacco therefore, which should always be pure and free from added flavouring, an expedient which is resorted to far too commonly nowadays, probably in many instances to cover an inferior quality of tobacco, the best kind of pipe is a point to be considered. Even assuming that he is smoking good tobacco the smoker knows how different in character the smoke is when drawn from a clay or a wooden bowl. There is probably a scientific explanation of this fact which must have some bearing on the noxious or innocuous character of the smoke associated with other products of combustion. A soft clay is invariably cool smoking because the acrid oils obtained on the destructive distillation of the tobacco are absorbed instead of collecting in a little pool, which must eventually either by the volatilisation or by mechanical conveyance reach the mouth. A particular pipe "smokes hot" not necessarily because the temperature of the smoke is high but because it favours the passage by one of these means of the oils into the mouth. Meerschaum is another porous material. Again, an old wooden pipe or briar, so dear to inveterate smokers, becomes "smooth smoking" because the pores of the wood widen and so absorb, as is the case with clay and meerschaum, a large proportion of the tobacco oils. Thus an old pipe "sweats" as it is termed—that is, the oil intrudes into the expanded pores of the wooden bowl and at length exudes. Similarly, a hook-shaped pipe must be better than a pipe the bowl of which is on the same level as the mouth, for the simple reason that in the former a considerable quantity of the oil is kept back in the U-shaped part of the pipe while in the latter the oil travels easily down the stem. Ebonite stems are in general objectionable because they commonly spoil the true flavour of tobacco smoke. This is most probably due to the sulphur of the ebonite combining with the volatile oils in the smoke. We know instances where ebonite stems have produced distinctly objectionable symptoms in the throat most probably for the reason just given. Bone or real amber makes a much more satisfactory stem or the pipes should be of wood throughout. Amber substitutes, and especially celluloid, should be discarded entirely as dangerous, while the flavour of camphor which these invariably communicate to the smoke forms a very unpleasant combination. Pipes of special construction cannot be regarded with much favour such as those which are said to be hygienic and usually contain a so-called nicotine absorber. Those smokers who require such auxiliary attachments had better not smoke at all. As a matter of fact tobacco yields little nicotine in the smoke produced on its partial combustion; it is mainly to oils of a tarry and acrid character that the toxic symptoms of tobacco-smoking are due.

DEGENERATION OF THE NEURON.

IN the October number of the *Journal of Mental Science* there is a short account of an able and interesting communication made by Dr. Mott at a meeting of the South-Eastern Branch of the Medico-Psychological Association. The neuron, he pointed out, must be considered as a very complex cell with processes, one of which is the neuraxon or axis cylinder process, the others being the dendrons. The neuron consists of two substances, one stainable by basic dyes and the other unstainable by such. If the cell undergoes chemical changes either of hydration or of dehydration regeneration, he thought, was probably impossible. He also pointed out the probability of the production of toxins as a result of degeneration of nervous structures, and he explained many phenomena of general paralysis—e.g., degeneration of heart and other muscles—by such auto-intoxication. General paralysis, he thought, depended upon a primary progressive degeneration of the neuron affecting chiefly the neurons of association, but starting sometimes in the afferent or efferent projection systems and producing respectively the ataxic and lateral sclerosis type. The secondary inflammatory phenomena, he thought, were due to irritation by the products of degeneration, and so in this disease were found congestive stasis, anæmia, epileptiform discharges, &c. Each fresh seizure resulted in an access of degeneration, thus producing a vicious circle and leading to progressive destruction of the whole nervous system. As to the influence of syphilis, in general paralysis as in locomotor ataxy he regarded syphilis as a most potent factor, although the morbid conditions in these diseases were not to be regarded as true syphilitic lesions.

THE WATER-SUPPLY OF COUNTRY DISTRICTS.

IT is surely a most unusual thing for a medical officer of health to be obliged to use terms such as are found in Mr. Parker's annual report to the Lancaster rural council. He says: "It is at least seven years since I first drew the authority's attention to the fact that the water-supply of Cockerham, Thurnham, and Glasson Dock was most unsatisfactory. It is still in the same state or if possible worse. No remedy has been found for this sad state of affairs. No notice has been taken of the matter and it seems almost useless for me to refer to it." The district named is close to the sea and is mostly low-lying. The large majority of farms have no water at all except rain water and that which is got from the dykes. These receive the drainage of the land and in several cases liquid manure from cow-houses. The village of Glasson Dock possesses a few pumps which yield a supply of brackish water, but the bulk of the population drink water from the dock basin. This is connected with the canal which is partly supplied from the River Conder after it has passed through a village named Galgate and received the drainage of several houses. Moreover, the canal is the favourite place for disposing of dogs and no less than twenty of their decomposing bodies have been seen within a distance of little more than 100 yards. A member of the council glories in the statement that he has drunk the water for twenty years without ill effect, which of course proves nothing. The Local Government Board is now moving in the matter and one of its inspectors is attending the meetings of the rural council.

The plan that he supports is that the Lancaster water, which is excellent in every way, should be supplied, but the proposal is meeting with considerable opposition. The state of things really seems to be very serious and a heavy load of responsibility rests on the authorities after the facts have been so strongly and persistently placed before them.

THE SALMON CLAUSE AND APPRENTICES' INDENTURES.

IN THE LANCET of Sept. 25th we commented upon some researches of Dr. T. N. Brushfield into this matter which showed that the existence of the clause was very doubtful. A correspondent, however, writes to us enclosing the views of a learned antiquarian from which we extract the following:—"I look upon the statement as correct. There would scarcely be documents to prove it because servants are hired verbally as a general rule. ..... My impression is that it was only in localities where salmon was superabundant ..... and there was no proper market ..... that this stipulation was resorted to." Our correspondent goes on to say that salmon probably followed the price of all other articles of food and that it is money which has fallen in value not salmon which has risen in price. For instance, feuduties or ground rents in Scotland used to be payable either in money or in a good fat hen. In a document dated 1779 the feuduty is fixed at twelve good fat hens or 6*d.* sterling each. A fat hen is now worth 3*s.*, but it is the value of the coin which has fallen. Many years ago the means of transport were very imperfect and fish being a perishable commodity would be very cheap. In this way, our correspondent thinks, the stipulation arose and would arise again were the same state of things to come about. Most likely, however, there never was any written agreement to this effect, so that Dr. Brushfield's inability to find an indenture setting forth this clause is thus explained.

ATTACKS OF MIGRAINE WITH ELABORATE VISUAL PHENOMENA.

A VERY interesting and unusual case of severe headache associated with visual hallucination and convulsive attacks is published by Dr. John K. Mitchell in a recent number of the *American Journal of Nervous and Mental Diseases*. The patient is a native of the West Indies whose health has been good. His age is not stated. The only neurotic history in his family is of an uncle who committed suicide. Three years before he came under observation he began to suffer from recurrent headache accompanied by a curious visual hallucination. He first becomes aware of the approaching attack by impairment of vision. Then he has a vision of a tiny dwarf appearing at a great distance. This figure gradually approaches, becoming larger and larger, finally assuming the form of a gigantic figure armed with a club. During his approach the headache gradually increases, and when he comes close he seems to strike the patient repeatedly on the head with his club, producing excruciating pain, until consciousness is lost. Violent convulsions usually follow, with arching of the body, so extreme as to cause it to rest on the head and heels. Between the first appearance of the dwarf and the time at which the apparition seems to strike the patient's head as much as eight hours have elapsed. Usually, however, the interval is less. At first the whole attack lasted twenty-four hours, but with more frequent recurrence of the attacks the duration of the individual attacks has lessened. The attacks never occur from December to May. There is a considerable refractive error which has been corrected. There is no history or evidence of malaria and apparently no signs of any gross visceral disease. Dr. Mitchell believes that the condition is really one of severe migraine, for in migraine, he says, it is usual to have (1) slight visual or other sensory disturbance, (2) pain, and (3) nerve storm. In this patient all three phases are present in a marked degree. The periodicity of the attacks also lends likelihood to this view and also the progressively increasing character of the symptoms. Epileptiform convulsions are, as is well known, of occasional occurrence in association with migraine. The case is a very interesting one and suggests the elaborate aurae which have been present in some cases of epilepsy. But the attacks are much more of the character of so-called hysteroid attacks, such as may occur in neurotic patients from any violent nervous disturbance. It will be interesting to know the result of treatment adopted on the supposition that the case is one of migraine.

HEREDITARY SPASTIC PARAPLEGIA.

IN the November number of the *American Journal of Nervous and Mental Diseases* Dr. Weston Bayley gives an account of several members of a family whom he has had under observation. The history of the affection shows that members of the family in five successive generations have been affected with the disease, which is characterised by a spastic condition, coming on as a rule about the fifth or sixth year of life, associated with exaggeration of knee-jerks and usually also ankle clonus, and without any sensory impairments or pupil affection. Dr. Bayley has himself examined nine patients in the family, involving three generations and, as he remarks, it is obvious that they are examples of an hereditary affection of the spinal cord. Of course, instances of family spastic paralysis have been described by more than one observer but Dr. Bayley is to be congratulated on the conclusive proof of its existence which he brings forward by showing its certain presence in three generations of the same family and its all but certain existence in two others.

A FORM OF MULTIPLE NEURITIS IN THE WEST INDIES.

IN the November number of the *Practitioner* Mr. Strachan, of Jamaica, contributes an article dealing with this subject, one to which he directed attention nine years ago in *Sajous' Annual*. A patient suffering from the disease in a typical form presents himself complaining of numbness and cramps in hands and feet, dimness of vision, and tightness round the waist. There is also a burning sensation in the soles of the feet and in the palms of the hands, worse at night usually than in the day, and there is as a rule slight excoriation with fine desquamation at the edges of the eyelids and at the margins of the lips and nostrils. The main nerve trunks in the limbs are tender to pressure and this is particularly true of the ulnar nerve, and along the distribution of the terminal filaments are fine herpetic vesicles. The muscles of the limbs waste and the trunk muscles may become involved and lead to respiratory difficulty. The pupillary reaction is not impaired although vision is much reduced. The external ocular muscles may become affected but this is rarely the case and a fatal termination is uncommon. When it does occur it is preceded by dyspnœa and riotous action of the heart. The mental condition is unimpaired except in the extreme cases in which delusions may be present. The reflexes do not differ in their condition from the condition of these phenomena found in other kinds of neuritis. In the few necropsies which Mr. Strachan has seen the most noteworthy feature was pigmentation of the brain, spinal cord, and larger nerve trunks. The changes in the liver and spleen were such as are usually found in cases of malarial poisoning. There is no mention of any microscopic examination of the nervous system or of the blood but Mr. Strachan is of opinion that malaria is the most probable toxic agent although he also

recognises the possibility that the poison may be the result of some micro-organism or other agency at present unknown.

THE Council of the Metropolitan Hospital Sunday Fund will recommend the constituents, who are to be convened on Monday, Dec. 13th, that June 12th be fixed for Hospital Sunday of 1898. We understand that Sir G. Faudel-Phillips, (the late Lord Mayor), Mr. Augustus Thorne, and Mr. Peter Reid will be recommended by the Council to fill vacancies on the Council. The report of the Council for the past year will be published next week.

THE subject of the Hughlings Jackson Lecture to be delivered before the Neurological Society of London by Dr. Hughlings Jackson at 11, Chandos-street, W., on Wednesday, Dec. 8th, 1897, at 8.45 P.M., will be "Remarks on the Relations of Different Divisions of the Central Nervous System to one another and to Parts of the Body."

THE monthly meeting of the South-West London Medical Society will be held at Stanley's Restaurant, 235, Lavender-hill, on Dec. 8th, at 8.30 P.M., when Mr. Victor Horsley will read a paper entitled "The Medical Acts of Parliament; What They Are and What They Ought to Be."

A CONFERENCE of the delegates of the various institutions affected by the scheme of Lord Cowper's Commission will be held at the University of London on Dec. 14th at the invitation of the Senate of the University.

Pharmacology and Therapeutics.

CREOSOTAL.

DR. NORDT has published full details of the very favourable results obtained by Professor von Leyden, of Berlin, in the treatment of phthisis by creosotal. The medicine was given in gradually increasing doses commencing with five drops three times a day and three drops being added daily until the quantity of twenty-five drops three times a day was reached. This dose was continued for a period varying from one to four weeks, after which the quantity was reduced and increased again. The night-sweats and fever of phthisis obviously became less under creosotal, while from week to week the bronchial secretion and cough were perceptibly diminished and the physical symptoms of phthisis disappeared completely in two cases in which the treatment had been continued for eight months and ten months respectively. Creosotal is perfectly free from the disadvantage of creosote, no unfavourable effects on the stomach or intestines having been observed in any case.

TETANUS ANTITOXIN.

Dr. Max Engelmann, of Leipzig, having successfully treated three cases of tetanus—two with Tizzoni's serum and one with Behring's—gives a detailed account of the cases in the *Münchener Medicinische Wochenschrift* (No. 32), and adds some remarks concerning the use of these serums in a number of cases published by others. Thirty-four were treated by means of Tizzoni's serum. Only eight terminated fatally and in three of these there were septic complications, four others were given doses that were probably inefficient, and the eighth case came under treatment only a few hours' before death. As no ill effects were produced by the serum he advises that it should be tried in all cases and that where a case appears to be a serious one a large dose should be at once administered. Of course sedative drugs should also be prescribed and the wound if it can be discovered treated on surgical principles. Seventeen cases were treated by means of Behring's serum, with a mortality of seven. In six of the fatal cases and in some of the successful ones the old preparation was used, while others were given the newer dry form. This last is more powerful, and even in large doses does not produce any unpleasant effects. Dr. Max Engelmann has not been able to discover any appreciable difference in the behaviour of the Tizzoni and Behring preparations.

HYPODERMIC INJECTIONS OF COCAINE IN THE VOMITING OF PREGNANCY.

In five cases of the vomiting of pregnancy where morphia injections and cocaine given by the mouth had failed Professor Tibone of the Turin obstetric clinic was able to effect an immediate cure by means of hypodermic injections of hydrochlorate of cocaine. One-seventh of a grain was thus administered just before food was taken, the puncture being made in the epigastrium and the injection repeated two or three times a day. It was found that this enabled the patients to retain their meals, and under this treatment they increased in weight and their condition improved in a marked degree, no unpleasant effect on the pulse, the respiration, or the temperature being observed in any of the cases. As soon as possible of course the cocaine was stopped and the vomiting did not show any tendency to return. Dr. Pozzi who writes on these cases suggests that it is probable that similar treatment may be found valuable in vomiting due to other causes.

The Lancet Special Commission

ON THE

METROPOLITAN WATER-SUPPLY.

XXI.[1]

NEW RIVER COMPANY.

THE WELLS, PUMPING-STATIONS, AND RESERVOIRS—*Continued.*

IN the previous article the stations of the company between Broad Mead Well (see C in the general map of the Company's works which appeared in THE LANCET of Oct. 23rd, p. 1069) and the Crouch-hill Reservoirs have been described. Continuing the survey towards the metropolis we come now to—

Stoke Newington reservoirs, filter beds, and pumping station (see V on general Map and Fig. 2).—The station at Stoke Newington is situated at Green Lanes. It occupies a large area and is divided into two by the road called Green Lanes. The part to the east of the road consists of two large open reservoirs and a pumping station; the filter beds are situated to the west of the road. The New River enters the eastern reservoir at its north-eastern extremity at Woodbury Down. Almost the whole of the water goes through this reservoir in the direction shown by the small arrows in the diagram (Fig. 2). A small amount of water only passes down the course of the river which is situated just to the north of the reservoir at the bottom of the gardens of the houses on Woodbury Down. The sluice at the part of the river near the inlet into the reservoir is kept almost shut, and through that part of the river which is situated just to the north of the reservoir a sufficient amount of water is allowed to pass so that a gentle flow may keep it sweet by circulation. The eastern reservoir is of somewhat irregular oval form, and covers an area of about 21½ acres and has an average depth of about 16 ft. except near the banks. It is surrounded by a puddle wall which goes down to the London clay. There is a grass walk all round and the eastern and southern sides are protected from the wind by a luxuriant thorn hedge. The available capacity of the reservoir is confined to the upper 3 ft. At the western side of the reservoir there is a disused engine house now occupied as a store; the engine was formerly used for pumping to the reservoir at Claremont-square but it has not been used for many years. From the eastern reservoir the water passes into the New River and in a south-westerly direction under Lordship-road, and then into the western reservoir. The area of this is about the same as that of the one just described and it is constructed on the same principle, that

[1] Nos. I., II., III., IV., V., VI., VII., VIII., IX., X., XI., XII., XIII., XIV., XV., XVI., XVII., XVIII., XIX., and XX. were published in THE LANCET of Feb. 20th and 27th, March 6th, 13th, 20th, and 27th, April 3rd, 17th, and 24th, May 1st, 8th, 15th, 22nd, and 29th, June 19th and 26th, Oct. 23rd, and Nov. 6th, 13th, and 27th respectively.

is to say, it is surrounded by a puddle wall and the bank-slope down gradually. The reservoirs together have an available capacity of about 90,000,000 of gallons, and roughly speaking the water remains in them for from two and a half to three days.

Filter beds.—There are nine filter beds which have a total area of about 8½ acres. On June 14th two of these were not in use; the one marked 3 was being cleaned and the one marked 5 was being re-sanded. Nos. 1, 2, 3, 4, and 5 are constructed on the same plan. The upper part of each is lined with blue Staffordshire bricks. The sides, which are lined with bricks and concrete, slope as 2½ to 1. The composition of the filtering material is as follows:—sand 2 ft., shingle 3 ft. For the collection of filtered water there are two culverts. To these culverts drain pipes, 10 in. in diameter, conduct the filtered water. These lateral pipes are arranged in lines which are at a distance of about 8 ft. apart, and the pipes run into the culverts. The upper part of the culvert is flat and is covered with flagstones. Each

FIG. 2.

Stoke Newington Station. NR, New River. A, Engine house. B, Disused pumping station. 1, 2, 3, 4, 5, 6, 7, 8, 9, Filter beds.

culvert has an air-shaft which has its outlet at the end of the bed. Filters 6, 7, 8, and 9 were built after the others, and they differ slightly in construction. The sides of these beds are nearly vertical. The filtering material consists of 2 ft. of sand and 6 in. of fine shingle (here called "pea shingle"). The method of collecting the filtered water in these beds differs from that adopted in those just described. In the newer beds the channels for the collection of the filtered water were formed of two courses of bricks built to form channels; no mortar was used. Each of these beds has one air-shaft, the outlet of which opens at the side of the bed. The other extremity of the shaft passes down to the bottom of the bed.

Cleaning filter beds.—As a rule a bed is used for about six weeks. It is cleaned by removing about a quarter of an inch of sand from the surface. The sand is washed in a place specially built for the purpose, which consists essentially of a number of bays formed of concrete. The sand is first placed on a hopper and subjected to jets of water at a pressure of 150 ft. head. From the hopper the sand passes through troughs into the washing bays, where it is cleaned by water which plays on it from a hose at a pressure of 150 ft. The amount of water used in washing the sand is about 3000 gallons per cubic yard.

Rate of filtration.—The rate of filtration is from 2½ to 4 gallons per square foot per hour.

Gauge.—There is a simple instrument in use at this station for gauging the rapidity of the filtration. It consists essentially of a diaphragm which is placed in the stream of water which flows from the filtered water culvert to the engine wells. The current of water acting on the diaphragm moves a lever to which an index is attached, and the index is thus able to show on a graduated gauge the rate at which the filtered water is passing out, the gauge being so graduated that it records the result in terms of gallons per square foot per hour. The arrangement is a simple one and is certainly worthy of general adoption. The filtered water passes into a shaft 16 ft. in diameter, from which it is conducted into a culvert as far as the boundary of the western part of the Company's property; it is then conducted under the road (Green Lanes) in two 48-in. pipes to the engine well.

Pumping arrangements.—There is a compound engine having cylinders 48 in. and 77 in. in diameter respectively and a stroke of 8 ft. This is worked at a pressure of 70 lb. and pumps the water to Crouch Hill reservoir against a head of 100 ft. As a rule this engine is worked for about eleven hours a day, and the water supplies Hornsey, Stoke Newington, Edmonton, and part of the City.

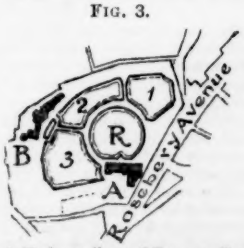
There are two pairs of compound engines, Nos. 3, 4, 5 and 6. Of these Nos. 3 and 5 are compound beam-engines with steam drop valves arranged with a high pressure cylinder mounted on a base in front of the low pressure cylinder. The diameter of the high pressure cylinder is 28 in., that of the low pressure cylinder is 46 in., and the strokes are 5 ft. 6⅜ in. and 8 ft. respectively. Nos. 4 and 5 are compound beam engines with steam slope valves. The diameter of the high pressure cylinders is 22 in. and that of the low pressure cylinders 36 in. The strokes are 5 ft. 6 in. and 8 ft. respectively. Of these engines Nos. 3 and 4 are worked together being coupled on one fly-wheel 24 ft. in diameter. Engines 5 and 6 are also coupled on a fly-wheel.

Another house contains a compound Worthington engine with high duty attachments. Of this engine the cylinders are 27 in. and 54 in. in diameter respectively, and the stroke is 3 ft. 6 in. This engine is capable of pumping 9,500,000 gallons of water daily and is used for pumping water to Maiden-lane, working against a head of 150 ft. The Maiden-lane reservoir supplies the higher district.

Amount of water pumped.—On June 14th water was coming down the New River to Newington at the rate of 31,000,000 gallons in the twenty-four hours. Of this quantity 25,000,000 gallons were filtered at Stoke Newington, and pumped to Maiden-lane, to Crouch Hill, and to the districts between Stoke Newington and those places. The other 6,000,000 gallons of water passed on down the New River to New River Head, Clerkenwell.

Workshops.—This station contains a large workshop and also cottages for caretakers.

FIG. 3.



New River Head, Clerkenwell. A, Offices. B, Engine house and workshop. R, Reservoir. 1, 2, 3, Filter beds.

New River Head, Clerkenwell (see W on Map and Fig. 3). The area of the station at New River Head is about eight acres. It is surrounded by a high brick wall. The house formerly occupied by Sir Hugh Myddelton, first governor of the Company, was situated here and part of it is now occupied by the offices of the Company. (Fig. 3, A). In addition to these, the station contains a small open subsiding reservoir, filter beds, pumping engines, a yard containing stores, and a large workshop. The water from the New River is received into a subsiding reservoir (Fig. 3, R), which has an area of about an acre, and is capable of holding 700,000 gallons. It is of circular form and lined throughout with stone. The flow of water into it is regulated by a cock. The water has very little time to remain in this reservoir, for the amount pumped daily from the station is about 6,000,000 gallons, therefore the water in the reservoir is changed several times daily.

Filter beds (Fig. 3; 1, 2, and 3).—There are three filter beds which have a total area of about two and a quarter acres. They are of somewhat irregular shape, as may be seen in the accompanying plan, which was taken from the ordnance

map. The sides of the filter beds are nearly vertical, and are lined with stone. The composition of the beds is as follows: Sand 2 ft., shingle and stones about 5 ft. The stones vary in size from that of a bean upwards. The smaller ones are placed at the top and larger ones below. Each filter bed has two culverts for the collection of filtered water. The culverts are square in form at the bottom and are built of brick. The water at the bottom of the bed is collected into a central culvert by U-shaped pipes, which are laid in lines at a distance of about 10 ft. apart. The diameter of these pipes is 6 in. The end of each filtered water channel is ventilated by a 4-in. iron pipe. This ventilating pipe is situated at a distance of about 4 ft. from the edge of the filter bed. The three filter beds are all constructed on the same plan and differ only in shape. Near the filter bed No. 1 there is a place for sand washing and a similar one is situated near bed No. 2.

Cleansing sand.—The arrangements for sand washing are similar to those at the other stations of the Company. Near the larger filter bed there are three bays for sand washing. The pressure of water is 120 ft. and the amount of water which is used for washing a cubic yard of sand is 3000 gallons.

Pumping arrangements (Fig. 3, B).—There are two engine houses called respectively east and west. The engine in the eastern house is in course of removal. The western house contains a beam engine made by Boulton and Watt in the year 1810. The steam cylinder is 44 in. in diameter, and the stroke is 8 ft. There are two pumps having barrels of 29 in. and 18 in. respectively, and strokes of 8 ft. and 6 ft. The steam is generated by two Lancashire boilers, and both the engines work at a pressure of 20 lb. It may be of interest to note that when the engines were first put up the steam was generated by copper boilers and the pressure used was only 4 lb. The water was formerly pumped through a stand-pipe; at the present time a large air vessel is used instead. The water is pumped to the High Pond reservoir, Claremont-square, a lift of 50 ft. The new engine which will be put up is an over-head three-cylinder engine of marine type capable of working at a pressure of 120 lb.

Workshop.—There is a large workshop in which taps and ball valves are tested and those found to be efficient are stamped with the Company's mark. An enormous amount of this work is now done, the number of taps tested being sometimes not less than 50,000 a week. Taps are tested to stand a pressure of 300 lb., which is about equal to a column of 670 ft. of water, which it may be noted is a much heavier pressure than they would be likely to sustain in actual practice.

High Pond reservoir, Claremont-square (see X on Map).—This reservoir is situated in the centre of Claremont-square, Clerkenwell. It is on the site of a high service pond which was formerly used. The present reservoir is covered with brick arches supported by brick piers. The sides are nearly vertical, the slope being 1 in 12. The bottom of the reservoir is lined with York paving stones set in cement. There are 30 cast iron ventilators and 8 circular manholes 5 ft. each in diameter. These are covered with galvanised iron sheeting. The reservoir has a capacity of 3,500,000 gallons; the top water level is 139 ft. above ordnance datum. Here there is a standpipe 45 ft. in height. There is a clock-work recording gauge here and a tabular gauge at the pumping-station at New River Head, whence the reservoir is supplied. The water is used for high service supply to the city. The reservoir is surrounded by a cast iron spiked railing.

Hampstead reservoir (see Z on Map).—There is a covered reservoir at the highest part of Hampstead Heath near the flagstaff. It is triangular in form, built of brick set in cement. It is covered by brick arches which rest on iron joists, which are carried by iron pillars. The reservoir is ventilated by iron shafts. It is surrounded by an iron fence and is covered by turf. Water is pumped here from Hornsey-lane and is used for the supply of the highest districts of Hampstead. There is here a stand-pipe 40 ft. in height, the top of which is 486 ft. above ordnance datum, and which is used for the supply of the highest services in the immediate vicinity.

Highgate reservoir (see AA on Map).—The reservoir at Highgate is situated near South-grove on the highest part of Highgate Hill. The area occupied is about two acres. The capacity of the reservoir is 1,000,000 gallons. The sides of the reservoir are built of brick set in cement, and the slope is 1 in 2. The depth in the centre is 12 ft. The reservoir is covered with a slate roof supported on iron joists. The water is pumped here from Hornsey-lane and is distributed to the higher parts of Highgate. There is a stand-pipe 6 in. in diameter and 50 ft. in height, the top of which is 481·8 ft. above ordnance datum. It is used for the high service of houses in the immediate neighbourhood. There is a small round-house which contains a cockpit and is used also for keeping tools. An iron railing surrounds the reservoir.

Hornsey-lane reservoir and pumping station (see BB on Map).—Water is pumped to this station from Hornsey, and is pumped hence to Highgate and to Hampstead.

Pumping arrangements.—There is a compound beam engine which has a high pressure cylinder 17 in. in diameter, and a low pressure cylinder 29 in. in diameter. It works two pumps which have cylinders 18 in. in diameter and a stroke of 2 ft. 6 in. The rate at which the pumps are worked is from 27 to 28 per minute. The steam for the engines is generated by two Galloway boilers, one only of which was working when visited. The steam pressure is 80. The head of water worked against in pumping to Highgate is 103 ft. and to Hampstead 133 ft. For six hours a day water is pumped against a head of 150 ft. over the stand-pipes at Hampstead and Highgate for the supply of the highest parts of those districts.

Another engine house contains a simple low pressure horizontal engine which works a double action pump which has a barrel of 12½ in. in diameter. The length of the stroke is 6 ft. and the engine works at a rate of twenty-two strokes a minute. This machine is not generally used, the engines first described having sufficient power to do all the pumping usually required by working for twelve hours or so daily.

This station is in telegraphic communication with Green Lanes, but not with the reservoirs at Hampstead and Highgate, so that when it is necessary to communicate with these stations a messenger is sent.

The reservoir is situated close to the engine house on the west side of Tile Kiln-lane next to Hornsey-lane. It is covered with brick arches which are turfed over at the top; the slope of the sides is about 1 in 6. The reservoir is ventilated by 6-in. cast iron pipes, it has a capacity of 3,000,000 gallons and the top water level is 343·2 ft. above ordnance datum. The reservoir occupies from two and a half to three acres and is protected by a high wall.

Maiden-lane reservoirs (see CC on Map).—This station is situated on Dartmouth Park Hill, Camden Town. There are two covered reservoirs and a cottage occupied by a street foreman—a man in charge of the arrangements for the local distribution of the water. The total area occupied is about ten acres. The reservoirs are capable of holding 15,000,000 gallons of water. The top water level is 232 ft. above ordnance datum. The reservoirs are covered with brick arches which are turfed over at the top. Each is ventilated by sixty cast iron ventilators, and there are ten inspection- or man-holes, which are covered with galvanised iron. There is a large cock-pit adjoining the reservoirs. This is covered by brick arches. It is 30 ft. in length and 20 ft. in width. Through it pass two 36-in. pipes which convey the water into the reservoirs and there is also a 24-in. overflow pipe which goes into the sewers. This pipe is provided with cocks which can be open or shut from the cock-pit. The pipes are 30 ft. below the surface of the ground. The pit is used for emptying the reservoirs when necessary, and when this is done the water passes first into it and then into the sewers. It has three divisions: (1) a central one into which the water passes before it is discharged into the sewers when the cistern is emptied for cleansing purposes; (2) the second division has a 36-in. supply and delivery pipe for the southern reservoir; and (3) the third division has a 36-in supply pipe for the northern reservoir. The water is pumped here from the Green Lanes station and is used for the supply of the district.

Gauge house.—At the south-east corner of the reservoir there is a gauge house. It is fitted up with a battery which records at the Green Lanes pumping station the amount of water in the reservoir. The electric arrangements are managed by the General Post Office. The construction of the gauge is briefly as follows: there is a copper float which is connected with a balance weight by a copper wire which runs on grooved wheels so arranged that each alteration of one inch in the water level is recorded.

DISUSED STATIONS.

A brief description may here be given of the disused stations at Cheshunt and Tottenham.

Cheshunt.—The station at Cheshunt is situated on the

right side or lower bank of the New River. There are two large reservoirs here and a well. The only use which is now made of this station is that there is a smithy here. The well has not been used for years. It was found that the level of the water in it was affected by the pumping at the station at Turnford, which is about three-quarters of a mile off. This well has, in fact, been disused since the new well has been sunk at Turnford. It is estimated that 750,000 gallons of water could be obtained daily at Cheshunt. The old machinery which is situated here consists of a single cylinder beam engine with gear working bell cranks. There are two large reservoirs. When these were made the idea was to store water in them, obtaining some, if necessary, from the New River and some from the well. The water which comes into these reservoirs at the present time is derived from the surface drainage of the country around. This water is not now, and has not been for many years, used by the New River Company as a source of supply. The surplus water from the reservoirs passes under the New River in a conduit made for that purpose and passes down into the River Lee.

Tottenham.—There is a disused pumping station in Ferry-lane, Tottenham. It was formerly used for pumping water from the River Lee into the New River at a point near the Seven Sisters-road. This, however, has not been done for more than thirty years.

Pumping arrangements.—There is a Cornish pumping engine which was worked by steam generated by three Cornish boilers. The engines are bright and clean; the boiler fittings have been removed. A workshop and care-taker's cottage are situated here. Near the pumping station there were formerly two mills which belonged to the New River Company. The water was taken from the mill tail and the New River Company had a sluice which was regulated so as to supply the mill tail with water as it was required without the necessity of its passing through the mill race. One of the mills was burnt down many years ago and the other has been dismantled. The water was formerly taken from the mill tail through cast iron gratings with ½ in. spaces and ½ in. bars; these remain *in situ*.

(To be continued.)

LEICESTER AND SMALL-POX.

(Continued from p. 1408.)

RETURNING now to Mr. Biggs we desire to note that with regard to the vaccinated condition of the tramp first attacked in the outbreak there is a discrepancy in Dr. Coupland's report. At page 26 the tramp is described as having "a smooth, small cicatrix" as quoted by us in THE LANCET of Nov. 20th. In the table of cases however (p. 12) under the heading of "Vaccination data" the entry is "Infancy: small smooth marks." Whether the plural or the singular is correct we know not, but in fairness to Mr. Biggs it is right to assume the plural. What therefore remains as regards this particular case is that the evidence being that the tramp, aged thirty-five years, had been vaccinated in infancy, Mr. Biggs declares in 1893 that the tramp "was well vaccinated" though he had previously held that after even nineteen years' interval vaccinal protection "has theoretically expired." His versatility in this connexion is further illustrated by a criticism which he made in the London *Echo* and the *Leicester Post* of Dr. Priestley's annual report for 1893. With regard to the protective power of vaccination against attack by small-pox Mr. Biggs then stated that the Local Government Board had "issued a memorandum fixing the limit at about ten years." This needless to say is simply incorrect. The Board never issued any such memorandum. Mr. Biggs of course has in mind here the Board's opinion that as a precautionary measure re-vaccination should be performed after ten years of age where primary vaccination has been done in infancy. But no one would accuse an insurance agent of declaring a man's stock of vitality to be entirely exhausted merely because of the agent's advice that the man should take out another life policy. On this assertion, however, that the Board had "fixed the limit at about ten years" Mr. Biggs proceeded to declare that of 184,000 inhabitants of Leicester only 10,000 could be looked on as theoretically protected by vaccination against small-pox. This was the same Mr. Biggs who wrote to the *Star* that the Leicester nurses who were attacked by small-pox were well vaccinated, their vaccination having been done in infancy and their ages ranging from twenty to forty-five years.

In Leicester a great deal is made of the assertion that every outbreak of small-pox has owed its origin to an "importation" and it is alleged by Mr. Biggs that such importations have been usually from well-vaccinated towns or districts (Q. 16,205). His Diagram D appended to his evidence before the Commission gives a table of so-called "importations." In 1877 it is admitted that the origin of the disease was unknown and the total number of persons infected was 12. Yet the outbreak is assumed to be due to an "importation." So also in 1885 there is no knowledge of how the disease arose, but the "importation" theory is adopted as a matter of course. It is obvious, indeed, that even Dr. Johnston, the medical officer of health, used the term "importation" very loosely, sometimes as meaning no more than that he could not trace the origin of the disease, as in 1883, when he says: "On the 31st August two additional cases having as far as could be ascertained no connexion with the previous one were reported in Argyle-street, making the fourth and last importation." Most importations are alleged to be by tramps. The "tramp" theory, indeed, is dragged in quite unjustifiably sometimes, as in 1881, when a father and daughter resident in Leicester and attacked in March are counted as a tramp or tramps in Mr. Biggs's table, whereas the first "tramp" visitation of the year is not recorded until May. However, the capacity of vagrants to convey small-pox is very well known and Leicester, like other places in the kingdom, has experienced this. These people travel about all over the country and as most places in this country can still be described as well vaccinated so far as primary vaccination is concerned it is not surprising that various tramps who came to Leicester had previously been in places where vaccination had not been neglected as in Leicester. Looking to the fact that every new appearance of the disease, whether recorded or unrecorded as to source, is described as an "importation," all that can be meant or ought to be meant would appear to be that Mr. Biggs, or whoever was originally responsible for applying the term "importation," did not believe in the *de novo* origin of small-pox, but that when the disease arose in Leicester it came from somewhere and not from nowhere. The same could be equally assumed of every outbreak of small-pox from the days of Rhazes onwards.

With regard to these importations Mr. Biggs, under examination, gave replies which amounted to a confession that evidence given by the chairman of the Sanitary Committee was very far from according with the facts. That witness had declared repeatedly that under the Leicester system all the cases of small-pox which occurred had been imported (Q. 13,238 and 13,240). From Mr. Biggs, on the other hand, Lord Herschell elicited the fact that many of the cases were not imported, but in spite of the Leicester system resulted from imported cases or cases which Mr. Biggs assumed to have been imported, their origin being unknown. Thus, according to Mr. Biggs, of 116 cases in the period 1874–89 only 33 had been imported, even allowing him to attach his own meaning to the term importation. Undeniable as his Table D shows this fact to be Mr. Biggs is exceedingly loth to give it due recognition. Having mentioned that "an epidemic threatened us in 1888 through the importations of small-pox from well-vaccinated Sheffield" (Q. 16,793) it was pointed out to him that he had shown only 2 cases imported from Sheffield in that year. It happened however that from these and other 3 "importations" from other places 16 persons had been infected, making 21 for the year, and that in the latter part of the previous year 2 "importations" (1 from Sheffield) had been followed by 8 cases, making 10 for that year. Adding these together he says (Q. 16 805): "There were 10 cases at the latter end of 1887 and 21 at the beginning of 1888, making a total of thirty-one centres of infection." Thus the Leicester method had failed to prevent the infection of 24 persons from 7 "importations," and straightway the whole 31 are described as "centres of infection" and the method gains new laurels in being able to deal with so great a number. So also Mr. Picton argued in cross-examination of Dr. J. H. Neale, of the Leicester Infirmary. That witness had said to Professor Michael Foster, in reply to a question as to the value of isolation as

practised in Leicester, that there had been very little small-pox to test it by, but that if an epidemic of small-pox came similar to an epidemic of scarlet fever which had attacked Leicester, so that there had been many cases waiting for admission to hospital and no beds to receive them, then "the effect might be rather disastrous" (Q. 14 897). Mr. Picton called the witness's attention to this answer and asked him if he was not aware that in 1888 no less than 23 cases of small-pox had been admitted to the hospital, and "as a medical man do not you think it a noteworthy fact that there have been these introductions of the disease into Leicester without any spread of it?" But as a matter of fact the 23 cases themselves included a "spread," for even Mr. Biggs alleges only 5 "importations" for that year. Yet Mr. Picton speaks of the whole 23 as "introductions of the disease into Leicester." In the course of the 70 weeks dealt with in Dr. Coupland's report there were 357 cases of small-pox in Leicester. Taking these as constituting the outbreak, if each of them is to be regarded as an "introduction of the disease," then, no more cases occurring, we reach the conclusion that, shall we say owing to the Leicester method, 357 introductions of small-pox were stamped out without infecting a single individual in Leicester. In the same way if we take say 1500 as the number of cases constituting the epidemic of 1870-73 in Leicester, and call each case a centre of infection or an "introduction of the disease," we find that under a system of primary vaccination even without re-vaccination 1500 centres of infection were "stamped out" without infecting anybody in Leicester, so that the triumph of infantile vaccination was much greater than that of the later Leicester procedure. The kind of argument here adopted by Mr. Biggs and Mr. Picton is so ridiculous that we are almost ashamed to spend time in its refutation.

We may note in passing that Mr. Biggs's statement regarding the quarantined that "compensation for loss of time is *not* offered" is based on a letter which he quotes from the town clerk and which seems definite enough. It is, however, contradicted by information given to Dr. Coupland by Dr. Johnston, the reputed author of the Leicester method. "It was the custom, Dr. Johnston informed me, for the corporation to pay the wages of the quarantined during their fortnight's detention." Between Dr. Johnston and the town clerk we do not pretend to judge, especially as the difference of statement refers to a time when there was very little small-pox in Leicester. When small-pox did come, however, in 1892-93 Dr. Coupland's report shows that payments *were* made for wages and he gives excerpts from the minutes of the Health Committee which leave no doubt about the matter. The Leicester system in the absence of small-pox was one thing. In presence of small-pox it was something else.

Questions relating to the hospital and quarantine have next to be looked at. It was part of the method to carry out quarantine in the hospital and we have seen how loth, according to Mr. Biggs, the quarantined people were to leave their quarters after their time of isolation had passed. "Many," he declared, "had been reluctant to leave the hospital." Turning to Dr. Coupland for a description of the place it hardly appears to have been a paradise. In 1881 Dr. (now Sir Richard) Thorne described the buildings as they were then. They were constructed of wood and galvanised iron. The erysipelas pavilion (where quarantine for small-pox was carried out) was somewhat dilapidated. Both it and the small-pox pavilion had been originally coated with tar but were afterwards whitewashed and remained "very unattractive in appearance." In 1885 the late Dr. Tomkins, then the medical officer of health, told the town council that the hospital was "an ugly makeshift" which had been "constructed hurriedly and on an ill-designed plan" and that it provided "unsatisfactory accommodation for the treatment of small numbers of patients or for the convenient separation of such cases as it may be desirable to isolate from others. It is also in many respects deficient in the accommodation and arrangements adopted in modern hospitals of this description."

This was the charming residence from which the quarantined people of Leicester could hardly be torn away. It was here, too, that the triumphs of Leicester were accomplished as regards both small-pox and other infectious diseases. In 1892-93 Dr. Coupland's comments agree with those of Sir Richard Thorne and Dr. Tomkins. "The sanitary accommodation is bad and I am informed that the building is infested with rats. I cannot avoid expressing the opinion that these two wooden buildings are a reproach to the authorities." Such was the place round which centred the Leicester system. Looking to the decade of boasting of which the system had been the subject it is really surprising that in face of criticism both by the Local Government Board and by its own health officer Leicester did not in defence of its own consistency provide itself with a building which would be something better than an "old shed." "It is not surprising," says Dr. Coupland, "that in 1893 it was found necessary to abandon the system of interning families in the hospital quarters and to substitute for it the practice (which had always been adopted when persons refused to go to hospital quarantine) of daily inspection of infected houses, a practice which is customarily carried out in other towns during epidemics of small-pox." Hospital quarantine, therefore, which, when small-pox was not prevalent, had been described as part of the Leicester method, had to be given up when the outbreak did come. Here also, as with regard to non-payment of wages of quarantined persons, the method was one thing in the absence of small-pox and another thing in the prevalence of small-pox. In short, the Leicester system was triumphant so long as there was nothing to triumph over. It was an excellent, even a "perfected," method when there was no small-pox, but when small-pox prevailed Leicester had to fall back on "a practice which is customarily carried out in other towns." Notwithstanding the assertion of Mr. Biggs regarding non-payment of wages to quarantined persons Dr. Priestley, who was medical officer of health then, stated at the annual meeting of the British Medical Association in 1894 that the cost of hospital quarantine in the outbreak was 25*s.* per head per week for adults and 12*s* 6*d.* for children. The total number of persons kept under observation was 1261. If half of these were children their hospital quarantine would have cost nearly £1200 for a single week. But as we have said small-pox being prevalent the system was dropped.

"We find small-pox very easy to deal with," said Mr. Biggs in 1891,[1] "and the same hospital and staff of officials deal with small-pox as with other infectious diseases."

In 1885 Dr. Tomkins had reported to the town council that the hospital was only an ugly makeshift and that there was not proper accommodation for the separation of different diseases. That, however, was the opinion of a mere medical man, and one who, moreover, though a Leicester official, was actually a believer in vaccination and had the temerity to warn Leicester of its possible danger. Councillor Biggs knew better. He declared in 1891:[2] "We find small-pox very easy to deal with and the same hospital and staff of officials deal with small-pox as with other infectious diseases." Ex-Mayor Hart had gone even further than Councillor Biggs. As to other infectious diseases he had declared "if there is a case of fever it is dealt with directly and there is no fear of an epidemic." Of course not. That declaration also belongs to 1891. But—and there is much virtue in a but—there was no small-pox in 1891 and we have already admitted that the Leicester system is good so long as there is no small-pox.

How long did this system of using the same hospital and staff for different diseases continue after small-pox broke out? We shall see. Small-pox began to spread in October, 1892, and in November the *Vaccination Inquirer* was engaged in advertising another triumph of the method. The town council was differently occupied. With regard to children convalescing from scarlet fever in the hospital the following is a resolution, as we learn from Dr. Coupland (p. 40), dated Nov. 1st, passed by the Fever Hospital Sub-committee and approved by the Sanitary Committee: "Resolved that the parents of the children in quarantine be advised to attend at the hospital so that they may be informed of the danger of small-pox in the hospital and asked if they wish their children to be brought home to-morrow (Wednesday) or would prefer to leave them at the hospital for the present." The form of words adopted here provokes a smile in its comical attempt to preserve some appearance of regard for the liberty of the subject and to conceal the urgency of the need for immediate escape from the hospital. There is a curious resemblance to American methods of voluntary vaccination as indicated by Dr. Rauch to the Royal Commission. Here is the impression which Dr. Rauch's evidence leaves on the reader's mind. An immigrant train as it nears the borders of the State for which the passengers are bound

[1] Vaccination Inquirer, July, 1891. [2] Ibid.

is boarded by one or two vaccination officers. They pass from one to another explaining that they are there to carry out vaccination of all who cannot show that owing to small-pox or recent vaccination they do not require it. Everything goes smoothly till they come to some professor of the cult of anti-vaccination. "I understood that vaccination was voluntary here." "So it is," replies the officer, "quite voluntary." "Then I won't be vaccinated." "That's all right," is the reply, "you do just as you please. We'll stop the train and let you out when we get to the boundary of our State. At present we don't want anybody coming into it who is not protected against small-pox." "What is the town at which we will have to get out then?" is the next question. "Oh, there ain't any town; it's a hundred miles from anywhere." "Well, I suppose I must get vaccinated." "Not at all," replies the officer; "we always respect the liberty of the subject in the United States. Vaccination is quite voluntary. Ah, that's the part of your arm you wish me to do it on; thank you. Next, please."

So it was with the Leicester Hospital scarlet fever cases. Their parents were to be told of the danger of small-pox and then they were to do as they pleased. Three weeks later we have an indication of the result. On Dec. 21st we read: "Resolved that the three scarlet fever wards be recommended to be utilised for the reception of small-pox cases."

As regards small-pox this *sauve qui peut* made the best of a bad job. But how was it as regards scarlet fever? Dr. Priestley states in his report for 1893 that within the next two months after the hospital was closed against scarlet fever the cases in the town doubled in number. It appears in that year, if unnotified cases are included, the total ran up probably to 4000. Confining ourselves to notifications, however, Dr. Coupland shows that in 1888 the scarlet fever cases amounted to 132; in 1889 to 409; in 1890 to 516; in 1891 to 794; but in 1892 to 1331; and in 1893 to no less than 2308. Further commentary is not required either on ex-Mayor Hart's statement to the Commission that as regards fever under Leicester management there was "no fear of an epidemic" or on Mr. Biggs's assertion that "we find small-pox very easy to deal with and the same hospital and staff of officials deal with small-pox as with other infectious diseases." As before the Leicester system was one thing small-pox being absent and a very different thing small-pox being prevalent. But we do insist that these several thousand cases of scarlet fever be taken into account in considering the results of Leicester's procedure with regard to small-pox in 1892–93.

THE ROYAL SOCIETY.

ANNIVERSARY DINNER.

THOSE who were fortunate enough to hear the presidential address delivered by Lord Lister on the occasion of the anniversary meeting of the Royal Society on the 30th ult. must have been convinced that the society does important public work apart altogether from the stimulus which it gives to scientific workers to wrest from nature her secrets. It is a fitting occasion, too, to pay tribute to those who have gone from their labours during the year.

The past year in the history of the Royal Society has been a memorable one to which the fact of it being Jubilee year has contributed not a little. The Royal Society in the persons of the officers, vice-presidents, and three former presidents and Lord Lister formed a deputation to the Queen at Windsor to present *in propriâ personâ* the congratulations of the society. These and other incidents, such as the memorial to the Prime Minister urging upon him the importance of establishing in this country a national laboratory in which the testing and verification of instruments of various kinds should be undertaken in a regular and systematic way, afforded Lord Lister abundant material for the annual address. And it was but natural that he should linger upon the close bearing of much of the work done by Fellows of the society to the healing art. The most important reference of this kind was to the work of Dr. Monckton Copeman, whose valuable researches on variola and vaccinia are well known to our readers. Although comparatively little advantage has yet been taken of the system suggested by the lines of this research in this country it has been adopted abroad and the Local Government Board have recently requested their medical officer, Sir Richard Thorne, to inspect the operation of this system abroad with the result that Mr. Chaplin is likely soon to propose legislation for the purpose of giving the full benefits of this valuable process to the country of its discoverer. The advance to which Dr. Copeman's researches have led consisted in the newly found fact that an admixture of glycerine in certain proportions with vaccine lymph derived from the calf had the effect of causing in no long time the disappearance of what were termed the "adventitious microbes" invariably present in that material at the outset without diminishing the efficacy of the lymph for the purpose of vaccination. Lord Lister also announced that his old friend, that distinguished medical officer and gallant soldier, Sir William Mackinnon, the late Director-General of the Army Medical Department, had made a very important bequest to the Royal Society in furtherance of original scientific investigation and research. By his will and codicils dated 1896 and 1897 Sir William Mackinnon, after making certain specific legacies including one of £2000 to the University of Glasgow, bequeathed the whole residue of his property to the Royal Society subject to certain life annuities. The proceeds of the fund are to be applied by the Royal Society for the foundation of such prizes and scholarships for the special purpose of furthering natural and physical science, including geology and astronomy, and for furthering original research and investigation in pathology as the society may think best and most conducive to the promotion of those sciences and of original discoveries therein, such prizes and scholarships to be called after the name of the testator. At the conclusion of Lord Lister's address the society's medals were presented to those recipients whose names have already been announced in this journal.

In the evening the annual dinner was held in the Whitehall Rooms of the Hôtel Métropole, when there was present a very distinguished company including the leaders of all departments of science besides Ambassadors of various countries and representatives of the Houses of Lords and Commons. To the Duke of Devonshire had been allotted the duty of replying to the toast of "Her Majesty's Ministers and the Members of the Legislature." Though his Grace confessed to little scientific attainment his speech proved of the deepest interest to scientific men and to those interested in the progress of science in this country. Touching upon the question as to whether the State can with advantage more directly interest itself in the direction or assistance of scientific inquiry he confessed he was not prepared to express much, but he was led rather to consider the less ambitious object as he termed it—namely, that of making some of the main principles of science more accessible to the main body of the people. He expressed the hope and trust that at no distant time Her Majesty's Government may be able to make proposals and submit measures bearing in some degree upon the subjects just referred to. Amongst these the Duke of Devonshire included such subjects as the creation of a teaching university for London and for the whole country some reorganisation of its secondary education "which is the indispensable foundation of any progress towards higher scientific study." It is needless to add that these pronouncements met with considerable applause.

The proceedings terminated in the usual way, the American Ambassador proposing the "Health of the Royal Society," to which toast the President responded, and he in turn proposed the "Health of the Medalists," to which Professor Forsyth replied with great self-possession and felicity. The final toast, that of "The Guests," was proposed by Lord Kelvin, and Professor Campbell replied. The company then dispersed.

THE CAMPAIGN ON THE INDIAN FRONTIER.

THERE is not much news to be chronicled regarding the progress of the campaign against the frontier tribes. The operations have, as far as the Afridis are concerned, assumed the character of a harassing guerilla warfare. Sir William Lockhart has penetrated to the heart of their country and occupied Tirah and has announced to the Afridis

his terms of peace and given them a week in which to submit to them. The cold is beginning to be severe and preparations must be made for winter quarters in case of a more prolonged occupation being necessary, and some of the Sikh regiments, who have done such splendid service and would suffer greatly in health from the cold of a winter's campaign, are returning to India.

But the strategical plan of the campaign, as we have understood it, does not necessarily involve our remaining in the country during the winter and there are indications that this plan will be adhered to. It is announced that Kohat will cease, or has already ceased, to be the base of operations and the Peshawar end of the Khyber Pass will take its place. General Lockhart's object was to get to and pass through the Tirah and Bara valleys and then make his way towards the Peshawar border, joining hands *en route* with General Hammond's column advancing towards the Bara valley from the east from Peshawar by the Khyber route. Sir William Lockhart, in the address he gave to the troops at Maidan, highly commended their bravery and devotion and pointed out very frankly the great natural advantages which the tribes possessed in the kind of warfare in which they were engaged from their intimate knowledge of the ground and from their skill in skirmishing and as rifle shots. He did this in order to inculcate the importance of discipline, controlled fire, mutual support, and the avoidance of straggling. Of course he did not omit to add his assured confidence in the success of his force, and it is a noteworthy indication of a general's entire belief and trust in the troops under his command that he had no misgivings about putting the position thus plainly before them. He knew the men with whom he was dealing. The troops composing the expeditionary columns have had most laborious marches through the defiles and over mountainous passes and have had to encounter a good deal of hardship due to the great diurnal variations of temperature, the hard work by day and disturbed rest at night, owing to the nightly firing and occasional "rushes" of the tribes, but their health and spirits have remained excellent. As illustrative of the liability of native troops from the plains of India to contract and die from respiratory diseases as compared with European troops we may take the figures in the blue-book on the "Sanitary Measures in India" recently issued. Respiratory diseases are the chief cause of death and in 1895 no less than 42 per cent. of all the deaths in the native army were due to them. Much of the pneumonia was attributable to the exposure endured by the regiments on active service in Waziristan and Chitral. The admission and death ratios were highest in the Indus valley and the hills, and the percentage of pneumonia to total deaths was there also highest. Both in the Indus valley and in the hills pneumonia was most prevalent in the cold months, and the same was the case for India as a whole. European troops suffer much less on field service than the natives, probably because they are more accustomed to cold, because they are better clad, and more nutritiously fed. Many medical officers serving with native regiments on the frontier are of opinion that the pneumonia is often of an infectious type and all seem agreed that malaria-saturated or scurvy-tainted men exposed to chill are peculiarly vulnerable in this respect.

Some progress towards peace has been made. The Tochi expedition appears to be settled, things are quiet in the Kurram, the Malakand expedition is over, the Ali Khel Orakzais in Mastura Valley have submitted and are paying the fines imposed upon them, and Sir William Lockhart is now waiting to see the result of his proffered terms to the Tirah tribesmen. If they are accepted, and according to the latest intelligence there appears to be some hope that they will be accepted, the troops will forthwith commence their return marches to India by columns. The "politicals" will, we feel pretty sure, try to effect a settlement if only to avoid the ruinous drain of a prolonged occupation on the Indian exchequer. General Westmacott's brigade has advanced to Duatoi after having traversed some miles of the worst defiles they have yet had to cross. It may be mentioned that the Lee-Metford bullet, as modified in India, has proved much more effective as regards "stopping power" than the missile which it replaced. According to the *Times of India* of Nov. 6th the deaths from disease in General Blood's Malakand force since Sept. 6th, including those at the base hospital at Nowshera, had only been—British seven, native five. This shows how healthy the troops have been and reflects much credit on the sanitary and medical arrangements. Intelligence from the Indian frontier regarding the campaign fixes what is to be the future programme. From the Bagh camp as a centre detached columns will march through the country, equipped with the lightest amount of baggage, stores, and food supplies. The latest news is of a more favourable character owing to the submission of several of the Afridi tribes. If the remaining tribes refuse to accede to the terms offered them the force will winter in a standing camp in suitable and specially selected position, probably near Barkai. According to some accounts the position of the Ameer of Afghanistan is a very difficult one, for his friendly policy towards the Indian Government is not popular with his own people or, of course, with the Afridi tribes. It is, to be earnestly hoped that a satisfactory settlement may be soon arrived at, for the situation whether regarded from a military or political point of view has grave difficulties. The positions taken by us cannot for sanitary, financial, and transport reasons be held during the winter, and when the troops evacuate them and return towards India it may be confidently expected that they will be subject to attacks by the tribesmen; and on the other hand to undertake another punitive campaign will be merely doing the work over again at ruinous cost. The sick and wounded are, we are glad to learn, doing well. The commissariat and medical arrangements during the campaign have by all accounts been very good.

THE BATTLE OF THE CLUBS.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND MEDICAL AID ASSOCIATIONS.

As we reported in THE LANCET last week, Mr. W. G. Dickinson, the honorary secretary of the Society of Members of the Royal College of Surgeons of England, moved a resolution at the thirteenth annual meeting of the Fellows and Members of the College, held on Nov. 18th last, asking the Council of the College "..... to make a clear pronouncement for the information of Fellows and Members that the acting by qualified medical practitioners as the paid officials of any institutions which tout and canvass for patients or which allow the well-to-do classes to take advantage of rates of payment arranged to meet the necessities of the poor is 'disgraceful in a professional respect' and deserving of censure." Mr. Dickinson pointed out the widespread public and professional evils induced by Medical Aid Associations and other companies trading in medical attendance and was able to adduce examples in the procedure of other corporations in support of his resolution. The Royal College of Physicians of Ireland had expressed disapproval of their Licentiates accepting appointments to medical aid associations; the Royal College of Surgeons in Ireland had on one occasion at any rate represented to a Licentiate the impropriety of being associated with a canvassing business; and the Royal College of Physicians of London had declared association with institutions of this sort to be undesirable on the part of their Fellows and Members.

Mr. Dickinson's motion was carried, the President saying that if particular instances of canvassing were brought before the Council the cases would be considered very carefully. There should be no difficulty in giving the Council a good deal to consider.

EASTBOURNE PROVIDENT MEDICAL ASSOCIATION.

A meeting of the medical profession in Eastbourne was recently held to receive the second annual report of this association. The report showed that the year had been one of steady progress. The number of members had grown to 4153 as against 3689 at the date of the last annual report. The total amount received in members' payments for the year had been £743, an increase of 23½ per cent. upon last year. £624 had been distributed amongst the acting staff—a total higher than last year's by £130. The working expenses had been covered by a charge of something over 16 per cent. of the money collected. Only one instance of a family financially ineligible having gained admission to the association had been brought to the notice of the committee, and they were, after due inquiry, removed from membership. We congratulate the association upon their sound work; local organisations of this sort should have no difficulty in holding

their own against the medical aid societies, supplying as they do better attendance at much the same aggregate cost, while the money is received by the people who do the work.

THE WANDSWORTH PROVIDENT DISPENSARY.

We have received the rules of the Wandsworth Provident Dispensary, the object of which institution is "to enable the working classes to insure to themselves and their families efficient medical advice and medicine during illness by their own weekly payments, *commenced in time of health*, aided by the contributions of other inhabitants." There are certain points about the rules which call for commendation, although in other respects the dispensary sins in company with most medical aid societies. For example, under Rule IV. the consulting medical officer, together with the treasurer and secretary, becomes an *ex-officio* member of the Committee of Management, whose functions are to be "entrusted with the general management of the institution, the appointments and dismissal of its officers and the superintendence of its financial affairs." We are glad to see that the resident medical officer, whose services constitute the whole and only benefit which the dispensary offers to its members, will have someone of medical knowledge to represent professional views on the Committee of Management by which he is controlled. He is himself probably in a far better position to help the Committee of Management than ever his consultant-colleague can be, but presumably he can inform that gentleman of the things that it is necessary for him to know. We note with regret that no wage limit is imposed upon the members. We have reason to believe that this dispensary is well and fairly managed, but we would point out to those in authority over its working that to have no wage limit and to seek aid from "other inhabitants" than the members is to invite abuse of the charity.

A QUESTION OF COMPARATIVE IMPORTANCE.

A correspondent in the Isle of Man sends us the following extract from the *Isle of Man Examiner* of some weeks ago:—

"The minutes of the Stores Committee [of the town council of Douglas] included the following:—

"Resolved: That the tender of Mr. T. S. Atkinson, Finch-road, quoting 3*s.* 6*d.* per horse per month for shoeing, including leathers, frosting extra, be accepted.

"Tender for supplying veterinary attendance and medicine for the ensuing year submitted and considered. Resolved: That the tender of Mr. T. S. Atkinson offering to supply veterinary attendance and medicine for the horses for a period of twelve months at £1 1*s.* per horse per annum, examinations as to soundness to be extra, be accepted.

"The minutes were adopted upon the motion of Councillor Cubbon, seconded by Councillor Moore."

An accompanying letter informs us that from the balance-sheet of a friendly society before him he learns that "a leading practitioner of the district attends members, provides medicine, and, if ordered, stimulants at the rate of 2*s.* 6*d.* per member per annum, a very small proportion of which is levied from the members themselves." We, like our correspondent, are very glad that Mr. Atkinson's services are appreciated at their true worth, but the difference between the price paid for the medical charge of a horse and that paid for the medical charge of a man is a little sensational, even though the quadruped is the larger animal.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6409 births and 4258 deaths were registered during the week ending Nov. 27th. The annual rate of mortality in these towns which had been 19·0 and 18·6 per 1000 in the two preceding weeks rose again last week to 20·2. In London the rate was 21·0 per 1000 while it averaged 19·7 in the thirty-two provincial towns. The lowest rates in these towns were 11·0 in Cardiff, 12·5 in Croydon, 13·1 in Portsmouth, and 15·5 in Hull; the highest rates were 23·7 in Sheffield, 24·1 in Burnley, 28·2 in Oldham, and 28·6 in Swansea. The 4258 deaths included 552 which were referred to the principal zymotic diseases, against 461 and 462 in the two preceding weeks; of these, 218 resulted from measles, 97 from diphtheria, 70 from whooping-cough, 70 from "fever" (principally enteric), 58 from scarlet fever, and 39 from diarrhœa. No death from any of these diseases was recorded last week in Brighton, Plymouth, or Derby; in the other towns they caused the lowest death-rates in Cardiff and Croydon and the highest rates in Oldham, Burnley, Halifax, and Blackburn. The greatest mortality from measles occurred in London, Birmingham, Huddersfield, Oldham, Halifax, Blackburn, and Swansea; from scarlet fever in Burnley; from whooping-cough in Sheffield; and from "fever" in Bristol, Preston, and Birkenhead. The 97 deaths from diphtheria included 63 in London, 8 in Leeds, 4 in West Ham, 4 in Burnley, and 3 in Manchester. No fatal case of small-pox was registered last week either in London or in any other of the thirty-three large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, Nov. 27th, was 3818, against 3680, 3777, and 3792 at the end of the three preceding weeks; 375 new cases were admitted during the week, against 339, 460, and 397 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London which had been 420 and 414 in the two preceding weeks rose again to 471 last week and were 36 above the corrected average. The causes of 59, or 1·4 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bradford, Leeds, Newcastle-upon-Tyne and in thirteen other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Liverpool, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns which had been 20·1 and 18·5 per 1000 in the two preceding weeks rose again to 19·5 during the week ending Nov. 27th, but was 0·7 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·5 in Leith and 17·5 in Dundee to 22·2 in Aberdeen and 25·4 in Greenock. The 581 deaths in these towns included 23 which were referred to whooping-cough, 22 to diarrhœa, 12 to scarlet fever, 10 to measles, 5 to diphtheria, and 2 to "fever." In all, 74 deaths resulted from these principal zymotic diseases, against 64 and 62 in the two preceding weeks. These 74 deaths were equal to an annual rate of 2·5 per 1000 which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough which had declined from 16 to 10 in the three preceding weeks rose again to 23 last week and included 15 in Glasgow. The deaths referred to scarlet fever which had been 18, 11, and 8 in the three preceding weeks rose again to 12 last week, of which 5 occurred in Glasgow, 3 in Dundee, and 2 in Edinburgh. The 10 fatal cases of measles showed a decline of 2 from the number in the preceding week and included 9 in Glasgow. The deaths from diphtheria which had been 6 and 4 in the two preceding weeks were 5 last week, of which 2 were recorded in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 161 and 145 in the two preceding weeks further declined to 123 last week and were 49 below the number in the corresponding week of last year. The causes of 35, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin which had been 19·8 and 23·3 per 1000 in the two preceding weeks further rose to 25·4 during the week ending Nov. 27th. During the past eight weeks of the current quarter the death-rate in the city has averaged 23·2 per 1000, the rate during the same period being 18·0 in London and 18·8 in Edinburgh. The 170 deaths registered in Dublin during the week under notice showed an increase of 14 upon the number in the preceding week and included 20 which were referred to the principal zymotic diseases, against 24 and 10 in the two preceding weeks; of these, 12 resulted from "fever" (principally enteric), 4 from diarrhœa, 3 from scarlet fever, 1 from whooping-cough, and not one either from

small-pox, measles, or diphtheria. These 20 deaths were equal to an annual rate of 3·0 per 1000, the zymotic death-rate during the same period being 3·3 in London and 1·6 in Edinburgh. The deaths referred to different forms of "fever" which had been 8, 10, and 6 in the three preceding weeks rose again to 12 last week. The fatal cases of scarlet fever which had been 8 and 1 in the two preceding weeks rose to 3 last week. The 170 deaths in Dublin last week included 28 of infants under one year of age and 36 of persons aged upwards of sixty years; the deaths of infants showed a decline while those of elderly persons corresponded with the number in the preceding week. Four inquest cases and 4 deaths from violence were registered; and 71, or more than a third, of the deaths occurred in public institutions. The causes of 11, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR MACPHERSON is directed to investigate the cause of the recent outbreak of scarlet fever at Caterham Barracks. Surgeon-Lieutenant-Colonel Powell is appointed to the medical charge of the 18th Regimental District. Surgeon-Captain Weir, Surgeon-Lieutenant Hewetson, and Surgeon-Lieutenant Clements are ordered to be ready to start shortly for India; Surgeon-Lieutenant S. A. Archer is also held in readiness for service in India. Surgeon-Major Battersby takes over the charge of Station Hospital, Dover Castle, and Surgeon-Major White takes over medical charge of the Staff and Departments, Dover.

NAVAL MEDICAL SERVICE.

Surgeon George Allan has been allowed to withdraw from Her Majesty's Naval Service with a gratuity.

MILITIA MEDICAL STAFF CORPS.

The under-mentioned gentlemen to be Surgeon-Lieutenants:—Alfred Hugh Benson and William Fletcher.

VOLUNTEER CORPS.

Artillery: 1st Ayrshire and Galloway: Surgeon-Lieutenant J. G. Thomson resigns his commission. *Rifle:* 2nd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Surgeon-Lieutenant R. C. Brown resigns his commission. The under-mentioned gentlemen to be Surgeon-Lieutenants:—Louis Demetriadi and Henry William Williams. 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment: Surgeon-Lieutenant C. S. Tichurst to be Surgeon-Captain.

NAVAL MEDICAL EXAMINATION.

The under-mentioned gentlemen, who competed on Nov. 22nd and following days at Examination Hall, Victoria Embankment, for appointment as surgeon in the Royal Navy, have been granted commissions:—

	Marks.		Marks.
H. Newsome, M.B.	2702	H. W. A. Cowan, M.B. ...	2071
M. Cameron, M.B.	2670	S. H. Facey	2054
J. D. S. Milln, M.B.	2456	G. Taylor, B.A., M.B. ...	2043
D. W. Hewitt, M.B.	2323	A. Woollcombe	1974
K. H. Jones, M.B.	2318	F. Bolster, B.A., M.B. ...	1951
R. Waterfield	2285	G. E. Macleod	1942
H. W. W. Townsend, B.A.	2216	W. H. Pope	1932
E. D. Macnamara, B.A. ...	2165	J. W. Bird	1928
W. J. Codrington, M.B....	2148	J. H. Fergusson	1924
A. W. Campbell, M.B. ...	2102		

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The following officers have accepted the invitation of the President and staff of the school to be present at the distribution of prizes and Bohemian entertainment which will take place at St. Martin's Town-hall, Charing-cross, on Thursday, Dec. 9th, viz.:—Major-General H. Trotter, commanding the Home District; Surgeon-Major-General J. Jameson, M.D. Glasg., Director-General Army Medical Department; Surgeon-Major-General J. B. Hamilton, M.D. Dub., Principal Medical Officer Western District; Surgeon-Colonel T. O'Farrell, M.D. R.U.I., Principal Medical Officer; and Colonel W. H. Mackinnon, Assistant-Adjutant-General Home District. The proceedings will commence at 8.30 P.M. precisely and a large number of the commanding officers of Yeomanry and Volunteer corps of the Home District have signified their intention of being present.

THE FRENCH IN MADAGASCAR.

The news from Antananarivo regarding the French occupation of Madagascar is not satisfactory. It appears that several of the French posts established in the Sakalava district have been attacked with the loss in some cases of a number of officers and men forming the garrison of these posts. A number of rifles and a large quantity of ammunition have fallen into the hands of the rebels. Reinforcements are being rapidly forwarded and the French will no doubt speedily stamp out the rebellion but not without incurring, it is feared, a good deal of sickness and loss of life on their part from malarial fevers and dysentery, owing to the fact that this is the most unhealthy season of the year in that climate.

THE GALLANTRY OF SOME OF THE NATIVE TROOPS IN INDIA.

The loyalty and devotion of the native army engaged in the frontier war in India have afforded extreme satisfaction. There have been several instances of great bravery on the part of native soldiers, in the Sikh and Goorkha regiments more especially, which thoroughly deserve recognition. It seems to us that examples of unusual gallantry entitle the individuals concerned to share in the honour and glory of their deeds and we hope to see a few soldiers of the native army who have been conspicuous for any act of heroic gallantry recommended for the Victoria Cross and that this tribute may be conferred upon them in a few cases where it is thoroughly merited.

THE SOUDANESE MUTINY.

News received from Fort Lubas and dated Oct. 24th gives an account of the great gallantry of Dr. Macpherson in carrying off Mr. Jackson, the Acting Commissioner, when badly wounded by the mutineers, to a place of safety under a heavy fire. Dr. Macpherson was himself wounded in the shoulder at the time of his succouring the Acting Commissioner.

THE SICKNESS IN THE RIFLE BRIGADE IN INDIA.

The *Times of India* of Nov. 13th states that the Rifle Brigade had arrived at Rawal Pindi where they made a halt for three days before proceeding to Umballa. It is reported that there have recently been 73 deaths in the regiment and that probably 100 men will require to be invalided.

DEATHS IN THE SERVICES.

Brigade-Surgeon-Lieutenant-Colonel North, 1st Madras Lancers, from cholera at Sanganakulli, in the Madras Presidency.

The *Army and Navy Gazette* says: "The Government of India has recently been called upon to decide a point affecting officers of the Indian Medical Service. The question raised had reference to the right of an officer of the Indian Medical Service in civil employ to demand a fee when called into a consultation on a sick military officer by the medical officer in charge of the case. It has been decided that an officer entitled to gratuitous medical attendance is also entitled to gratuitous advice from a medical officer in the employment of the Government called into consultation by the medical officer who is, in accordance with the regulations, in charge of the case. It is only when an officer declines the attendance of the medical officer provided by the Government and calls in another medical officer to attend him in illness that the usual fees can be claimed by the latter."

The promotion of Brigade-Surgeon-Lieutenant-Colonel Caldecott, I.M.S., to the rank of Surgeon-Colonel removes him from Central India where, according to the *Pioneer Mail*, he has served for a long time and enjoyed a deservedly high reputation for his surgical skill as well as his administrative ability. The Indore Charitable Hospital, the scene of his hospital work, is said to be a model of what such institutions should be. He was not only well known in Indore but throughout Central India, and in every native State will the loss of his services be deplored. The amount of good done by medical officers of this stamp in strengthening our position with the native population is not easily estimated.

TROWBRIDGE COTTAGE HOSPITAL.—The annual report of the Trowbridge Cottage Hospital shows that thirty-three patients were admitted during the past year.

Correspondence.

"Audi alteram partem."

UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—The General Medical Council have at last declared the employment of unqualified assistants to be "infamous conduct in a professional respect," but having done so it should I think go further and as far as possible protect not only the public but the qualified practitioner from the hosts of unqualified men up and down the country who unfairly and illegally pose as qualified. Hitherto this task has been undertaken, but only to a limited and half-hearted extent, by practically one body—viz., the Society of Apothecaries. In the analogous case of the law, however, we do not find our legal brethren so slow to move in the matter of protecting their qualified men against the insidious attacks of legal quacks. If the General Medical Council has no powers in the matter by their several Acts of Parliament it is surely time that these were obtained in the interests both of the profession and the public.—I am, Sirs, yours faithfully,

Swinton, Nov. 27th, 1897. SAMUEL HOSEGOOD.

To the Editors of THE LANCET.

SIRS,—I have perused the report of the proceedings of the General Medical Council in THE LANCET of Nov. 27th and I am lost on account of the vague, opposite, and indefinite expressions of opinion by the individual members of the Council as to what the appendix introduced by Dr. MacAlister really means. To begin with, on receipt of the appendix notice is a practitioner supposed to have to wade through these various speeches and digest them for his own mental enlightenment or confusion? The appendix concludes as follows: "But the foregoing notices do not apply so as to restrict the proper training and instruction of *bonâ-fide* medical students and pupils or the legitimate employment of dressers, dispensers, and *surgery attendants* under the immediate personal supervision of registered medical practitioners," and while I observe endless discussion — without any definite decision being arrived at—as to when, where, and how a man is a *bonâ-fide* student or pupil not one word do I note as to what is, or what is not, the limit of work of "a surgery attendant." I may say that I am in general practice and keep a qualified assistant and also a gentleman—full curriculum and son of a deceased hospital staff practitioner—whom at present I would describe as "a surgery attendant." We all live under the same roof; the attendant keeps my books, dispenses, and stays in the surgery while the qualified assistant and myself are out on our "rounds." He also attends a few midwifery cases when the qualified assistant and myself are otherwise engaged. He does not pay visits in the ordinary course of events; if a message comes when the qualified assistant and myself are out it awaits our return—unless there is a pressing and urgent call. Am I to understand that if word is sent to my house that one of my patients is in the position of imminent danger from miscarriage, hæmorrhage, precipitate labour, or accident during the absence of myself or assistant such a competent "attendant" is to shut the door and decline to act in the emergency, while the herbalists and midwives in the district and the very policemen in the street or some factory operative who have attended a superficial course of ambulance lectures are fit and proper persons to interfere in the hundred and one cases which arise in the everyday life of our manufacturing towns. It is all very well for the consultant majority of the General Medical Council to sit in philosophic arm-chairs and draw up theoretical, vague, and indefinite resolutions, but I, as a general practitioner and a practical man, would ask for something more definite. Until then I do not know what my position is — whether I am a law-abiding citizen or an "infamous" one! Finally, is it the intention of the General Medical Council to drive from within the ranks of the profession a whole army of deserving men, although unqualified, who are in common with their principals actuated by the ethic and moral code of a liberal profession, to swell the decidedly better paid outside ranks of unqualified persons and quacks over whom the Council not only have no control but judging by their past and present action do not seek to have control by those powers which are possessed by other professions?

I am, Sirs, yours faithfully,

Nov. 29th, 1897. G. P.

To the Editors of THE LANCET.

SIRS,—The resolution recently passed by the General Medical Council in regard to the employment of unqualified assistants is truly hard if not unjust. I know many who like myself have had a chequered career for want of other necessaries than brains and under the old regulations we were allowed and encouraged to prosecute our studies by the help of a qualified principal. The penalties set forth for a breach of this rule are so plain and so severe that it means a speedy extinction of the unqualified assistant and a great hardship upon many a principal whose slender means may not be sufficient to justify the engagement of a qualified assistant. Hundreds of married men in colliery districts will have to seek other employment.

If the General Medical Council would move in the matter of suppressing the quackery practised by so-called "oculists" and "aurists," abortionists, truss specialists, and swindling pill vendors and leave the *bonâ-fide* unqualified assistant alone they would earn the gratitude of thousands of practitioners and especially of one who is not ashamed to say that had this stringent clause been inserted six years ago he would not have been able to sign himself

Yours faithfully,

Nov. 30th, 1897. M.B. LOND.

To the Editors of THE LANCET.

SIRS,—My son and I are partners and for many years have had an unqualified assistant who acts as dispenser and when very busy or in an emergency visits. The assistant registered many years ago as a student, but from pecuniary difficulties has never been in for his examinations; he has had ample experience both in England and Scotland and is quite capable of taking charge of any ordinary case. Are we acting in an "infamous" manner or going against the law of the land? I may say that we have three or four times tried a qualified man for the post, but they were always a failure, not because of any faults in practice, but because they thought that they ought to be more entrusted with patients and in fact got above their position. What am I to do?

I am, Sirs, yours faithfully,

Dec. 1st, 1897. MEDICUS.

THE ANNUAL MEETING OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—In your report of this meeting you omit to notice the fact that the Council of the College passed in 1893 a resolution (which I quoted) supposed by many to refer to medical aid associations. This resolution declares it to be degrading to the profession and disgraceful to the College that Fellows or Members should be connected with "trading institutions for the treatment of disease." This would be considered by most people a good definition of a medical aid association as usually conducted by laymen. It appears, however, that it really referred to the Harness Belt Company. My point was that if the Council could, without hesitation or difficulty, pass such a resolution as this in 1893 there can be no valid reason why it should not pass a similar one in 1897. There is every reason why it should do so since its obstinate refusal has already led to the scandal of medical aid appointments being resigned by Members or Licentiates of other colleges whose councils have had the courage of their convictions and to their places being immediately taken by Members of the Royal College of Surgeons of England.

It is no doubt satisfactory that the Council is willing to consider a case in order to determine whether it comes under By-law XVI., but as it has already decided that it has no power to question the legal position of the holders of these appointments the probable result of such consideration may be easily foreseen. It comes to this; every member of the Council knows that what is going on all over the country is a scandal and a disgrace to the profession several have said so publicly; and yet on account of some absurd technicality they are afraid to express a collective

opinion which they know would have a powerful effect in checking the evil. Such an opinion may be called "pious," but it would govern the policy of the Council, would act as a warning to offenders, and would indicate a determination to use every possible means to purge this College of all complicity with one of the greatest scandals of the day.

I am, Sirs, yours faithfully,

Nov. 29th, 1897. W. G. DICKINSON.

"MORALS AND THE STAGE."

To the Editors of THE LANCET.

SIRS,—In an annotation with the above heading in THE LANCET of Oct. 2nd you say: "We should doubt ourselves whether crime was ever prompted by either a poster or a stage representation," and you also quote Sir Henry Irving as having asked at a complimentary dinner at Cardiff, "How many wives had owed a violent death to the pernicious example of Shakespeare in *Othello*"? While I agree with you as to posters, which produce a mere passing impression, and are therefore as highly coloured as possible with that object in view, I think that a stage representation is a very different thing and that in the case of tragedies the more powerful the play the more is the attention fixed and the more likely are the mental images to remain deeply impressed in the brain of the spectator.

Some years ago I had to do with a case of murder where the idea of strangulation was directly prompted by a theatrical representation of *Othello*. It was the case of a young Italian who insured the life of his servant to his own benefit and after waiting a couple of months smothered him in his bed one night. At his trial the criminal calmly remarked that he had lately seen (*twice* he actually went, probably with the object of perfecting his method) the opera of *Othello* and that he "only did to the young man what Othello did to Desdemona," and he also confessed that in the very act of smothering his victim "the scene in the theatre was vividly before him as it was before him now" ("*Tuve y tengo presente lo que hizo Otello con Desdemona*" is what he actually said in Spanish). There is no doubt that in this case the crime of strangulation was directly suggested to the would-be murderer by a stage representation of *Othello*. This is one case at any rate for Sir Henry Irving to ponder over. The whole case of this Italian was especially rich in medico-legal interest, but I must not encroach any more on your valuable space.

I am, Sirs, yours faithfully,

GEORGE MACKERN, M.D. Lond.

Buenos Aires, Argentine, Nov. 4th.

"THE DISINFECTION OF CLOTHING BY HEAT."

To the Editors of THE LANCET.

SIRS,—I have not the good fortune to be personally acquainted with Professor Delépine, but judging from the courteous wording of his letter I feel confident that he will acquit me of plagiarism when I assure him that until to-day I was absolutely ignorant that anything like my steam disinfector had ever been in use before. I think that there is some excuse for this inasmuch as I have not noticed any mention of it in THE LANCET; nor in the appendix on Steam Disinfectors in Applied Bacteriology (edition 1897), by Pearmain and Moor; nor in the chapter on Disinfection in the Manual of Infectious Diseases (edition, June, 1896), by Goodall and Washbourn; nor in the Theory and Practice of Hygiene (edition 1896), by Notter and Frith. Mr. Bailey and myself had been working at the subject for several weeks, but the heating power was always the stumbling-block, and although the sight of painters with an "Etna" in hand scraping old paint off doors was familiar enough the idea of using volatilised petroleum never occurred to me until Mr. Bailey suggested it. Curiously enough, a week or two before I had begun to think about making a machine a notice under the head of "New Inventions" appeared in THE LANCET of May 29th, 1897, describing "a wickless oil stove with smokeless flame" (made by the same firm which makes the "intensive oil-furnace" shown in the illustration to my paper) and referring to the production of this flame as an "attainment of some importance." This notice escaped my attention probably because I had not at that time any use in view for such a stove. With regard to the similarity in shape, dimensions, and the amount of water necessary which Professor Delépine points out, my opinion is that if he put the principle of heating by volatilised petroleum into the heads of ten men and told them to make a steam disinfector nine of them would make one pretty much the same in shape and dimensions and would come to the same conclusion as to the amount of water necessary as Professor Delépine and myself. With regard to Mr. Walter Bernard's letter I have looked up THE LANCET of May 16th, 1896, and I find a short account of an apparatus for disinfection by exposure to fumes of heated eucalyptus and carbolic acid. There is no mention of volatilised petroleum or steam at boiling water temperature and without steam at 100° C. I feel convinced he will not get eucalyptus and carbolic acid fumes to penetrate through woollen fabrics in any reasonable time; if, on the other hand, he can get steam at that temperature throughout his disinfecting chamber he can then dispense with those agents altogether.

I am, Sirs, yours faithfully,

Nov. 27th, 1897. A. F. MESSITER.

To the Editors of THE LANCET.

SIRS,—Mr. Messiter has shown me Professor Delépine's letter to you and his own answer. I beg to confirm all that Mr. Messiter says and to say that the use of volatilised petroleum was suggested by myself alone without ever having seen or heard of any similar disinfection apparatus. The similarity in shape and dimensions may be accounted for by the fact that galvanised iron is sent out in sheets 6 ft. by 2 ft. 6 in. The height of the chamber without the lid is 2 ft. 6 in. and 6 ft. gives diameter of 21 inches after allowing for seams.

I am, Sirs, yours faithfully,

Epworth, Nov. 29th, 1897. ALFRED BAILEY.

"THE MECHANISM OF DEATH FROM CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 13th Surgeon-Lieutenant Lane criticises my paper on the Mechanism of Death from Chloroform. It would have been fairer to me had he read my paper more carefully, giving the expressions used in it their proper value, and it would have been still better had he reserved his remarks until he could have referred to my previous paper and Dr. Snow's book from which Cases 6 and 7 are taken.

The reports of the cases coming at second-hand are not full, but the information afforded is enough for the immediate purpose and greater than Surgeon-Lieutenant Lane seems to appreciate. In describing Case 2 I advisedly employ the terms "breathing deeply" and "free respiration" expecting these words to be taken at their current value, as indicating that air was freely entering the chest and trusting your readers to credit me with a knowledge of the difference between "free" and "obstructed" respiration. Yet Surgeon-Lieutenant Lane does not know "whether air was entering the chest or not!" In Case 3, scanty as the information is, it is enough to emphasise the fact that there may be free respiration at a period when the circulation has practically ceased as shown by the absence of bleeding on incision. As regards Case 7 Surgeon-Lieutenant Lane says "the clinical picture is familiar enough. It is that of a man whose air-pasage is obstructed, say, by the root of his tongue." Has Surgeon-Lieutenant Lane ever known a patient with his air-passage obstructed in this fashion take long, deep inspirations or die under the circumstances described?

In Case 1 I agree with Surgeon-Lieutenant Lane that similar symptoms could be produced by shock—that is practically the point to which I have already drawn attention. In this particular instance I consider the symptoms were caused by the chloroform and precipitated by the sudden raising of the head further depleting the nerve centres of blood. May I remind Surgeon-Lieutenant Lane that in the condition known as "shock" we have extreme lowering of the blood pressure. My contention is that an equal lowering of the blood pressure may also be produced by chloroform (indeed is produced) and the outward manifestations of the occurrence of this condition depend upon the degree of narcosis the patient is in at the time.

I am, Sirs, yours faithfully,

Manchester, Nov. 24th, 1897. ALEXANDER WILSON.

"A NOTE ON CYCLING."

To the Editors of THE LANCET.

SIRS,—As a cyclist of over a quarter of a century (I first rode in 1872) I feel I must challenge Dr. Campbell's statements regarding posture and reasons given for less fatigue in cycling compared to walking.

First, regarding posture, it stands to reason that if the dorsal curve of the spine is exaggerated the ribs must necessarily come closer together and so impede thoracic movements. Diaphragmatic respiration is encouraged therefore. The intervertebral discs are pressed upon and, in proportion to the length of time the position is assumed, they are made wedge-shaped, the spinal ligaments are modified by vibration to this position, and the result is kyphosis bicyclistarum in those cases where Dr. Campbell's graceful curve of back is made to harmonise with the wheel rims for hours and days together. I have ridden all sorts of "safeties," various makes of "ordinary" (varying from a 56 in. to a 62 in.), the old Ariel, and the iron-rimmed "bone-shaker," and my experience is that the intervertebral discs, though capable of much recuperation after malposition in riding, are very sensitive to jarring and vibration. To ride an iron-rimmed bone-shaker with a curved back would be fraught with dire discomfort subsequently. My theory is this—that so long as the *lumbar* curve of the spine is a forward one—i.e., so long as its convexity is anterior—it is quite allowable to bend the spine forward as a whole, so that the resistance to the atmosphere is diminished; but if the lumbar curve is obliterated and made continuous with the dorsal one the position is faulty. I speak with more authority than most cyclists for I have made many trials and being 6 ft. 6½ in. in height a faulty position of the spine in my case soon "tells."

Regarding the second point, as to increased endurance, the whole hinges upon carrying *versus* rolling a weight. In cycling we roll our own weight; gearing gives leverage (third order) and diminishes muscular movements; ball-bearings diminish friction, and pneumatic tyres are to the cycle what steel rails are to the train and locomotive. I am willing to admit Dr. Campbell's comparative anatomy, but if the erect position were such an effort to maintain as he suggests, then I for one ought to find walking a most arduous exercise. In practice I do not; I can walk all day and do a mile in eleven minutes, therefore although Dr. Campbell's suggestions regarding diminished distance from head to feet may apply in some cases he cannot lay it down as a universal fact.

I am, Sirs, yours faithfully,

G. G. GIDLEY, M.R.C.S. Eng., L.R.C.P. Lond.

Cullompton, Devon.

A QUESTION OF TITLE.

To the Editors of THE LANCET.

SIRS,—The modern development of professional ethics has quite determined that a practitioner shall not advertise himself as a Doctor of Medicine when he is a Licentiate of the College of Physicians only and so on. Is it not quite a parallel indiscretion for a hospital to advertise itself as the "Cancer Hospital" when members of its staff admit cases of uterine myoma and perform "panhysterectomy" without making it clear that they at least had the excuse of a mistake in diagnosis?

I am, Sirs, yours faithfully,

LAWSON TAIT.

Newhall-street, Birmingham, Nov. 26th, 1897.

"SURGICAL SYMPTOMS IN CONNEXION WITH FILARIA SANGUINIS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Oct. 9th last is an annotation on an interesting paper on Filarial Diseases of the Lymphatics, read by Surgeon-Lieutenant-Colonel W. K. Hatch before the Bombay Medical and Physical Society. Everyone must sympathise with Surgeon-Lieutenant-Colonel Hatch in the unfortunate issue of the case upon which he reluctantly operated, but at the same time the evidence afforded by the symptoms point to death having been due to some cause unconnected with the disease of the lymphatics. In any case I submit that it is hardly rational to condemn this operation on the results of an isolated case.

In an article on this subject[1] I drew attention to the fact that twenty-four operations of this nature had been performed during the last seven years in the Madras General Hospital and in none of these cases did any serious symptoms arise. In carrying out the operation care should be taken as far as possible to secure all the lymphatic vessels before they are divided. If, in spite of this precaution, leakage should occur, firm pressure should be applied by means of a sponge which is included within the dressings. If these precautions be adopted the wound will generally heal by first intention. Cases of filarial lymph-angiectasis of the spermatic cord are treated in the same manner and with the same precautions. Experience has confirmed me in the opinion that operative measures are called for in many cases of lymphangiectasis of filarial origin. Not only is there a prospect of securing some of the parental worms, a result which I have in several instances achieved, but there is also the prospect of relieving the patient from the serious annoyance caused by recurring attacks of inflammation. There are no doubt certain cases in which there have been attacks of chyluria or in which there are other evidences to show that the seat of obstruction is at some point high up in the lymphatic system that is not suitable for operation. Putting such cases aside the operation is one which, in my opinion, may be confidently recommended as holding out a prospect of relief to the patient and one which involves but little risk.

I am, Sirs, yours faithfully,

J. MAITLAND, M.D. Edin.,
Surgeon-Lieutenant-Colonel.

General Hospital, Madras, Nov. 11th, 1897.

ON A SOPHISTICATED SYRUP OF FERROUS IODIDE.

To the Editors of THE LANCET.

SIRS,—May I be allowed to call attention to the fact that much of the syrup of ferrous iodide now found in the pharmacies contains hypophosphorous acid in appreciable quantities. The responsibility for this seems to rest on certain London firms who prepare syrupoids or solutions for the preparation of these syrups alleging them to produce more elegant syrups than the methods of the Pharmacopœia. The presence of the hypophosphorous acid being quite unlooked for may explain how it is that syrupus ferri iodidi so often produces gastric troubles in young children.

I am, Sirs, your obedient servant,

Dublin, Nov. 29th, 1897. J. C. MCWALTER, L.R.C.S. Irel.

"THE IMMEDIATE TREATMENT OF THE DEFORMITY OF SPINAL CARIES."

To the Editors of THE LANCET.

SIRS,—The paper which we read on this subject before the Clinical Society of London on Nov. 12th was brought forward by us for certain specific purposes which were therein detailed—viz., to demonstrate the feasibility and safety of this method in suitable cases. The question of ultimate results was one with which a paper founded upon cases of four months' duration could not pretend to deal nor did it attempt to do so. As such it was accepted for reading. It is a matter of great satisfaction to us that you in your editorial article of Nov. 20th and in common with other medical periodicals have granted our theses and in the following words: "(1) That angular curves of the spine can very generally be straightened by the exhibition of an amount of force well within the limits of safety; (2) that this treatment is not attended with grave immediate danger if carried out with due care; and (3) that curves of long duration and great extent may yield to this treatment."

There appear, however, to be two discrepancies in your editorial article to which we wish to allude. In the first place we fail to understand how, in view of the three conclusions to which you had already come, the next statement can be substantiated—viz., "the demonstration was of value and interest solely as indicating the method adopted and the extent to which curves of the spine will yield to force." And in the second place in an early part of your remarks you speak of the method as "an altered form of an old and discarded treatment of Pott's disease of the spine," and later

[1] Brit. Med. Jour., Oct. 2nd, 1897

as a "new treatment." The desire to see ultimate results can and will be gratified when sufficient time has elapsed for the spines to become consolidated which in the nature of things must take at least twelve to twenty-four months. We regard our paper as a timely and not a premature communication delivered with the object of demonstrating the facts and conclusions you have described as "being clearly shown." We are, Sirs, yours faithfully,

A. H. TUBBY.
Weymouth-street, W., Nov. 27th, 1897. ROBERT JONES.

*** We fail to appreciate the "discrepancies" our correspondents allude to. Spinal curvature is not the essence of spinal caries but an accident in its course, and we are of opinion that the authors of the papers at the Clinical Society offered no material evidence to show that the treatment they described and illustrated is of value in the treatment of the disease as distinguished from the deformity with which it is often accompanied. It is not unusual to describe "an *altered* form of an old" treatment as a "new" treatment; indeed, if the word were not to be used in this sense it would have to be almost banished from modern medical literature. We shall await the demonstration of the ultimate issue of this treatment with open mind and in the meantime remind our correspondents that a demonstration of a method of treatment does not afford material for the discussion of the therapeutic value of that treatment.—ED. L.

THE INDIAN MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—We have now such an unsatisfactory condition of the Medical Department of the British Army that anything which tends to impair the position and diminish the efficiency of one of the allied departments will I am sure receive consideration at your hands. Hitherto the advantages offered by the Indian Medical Department to members of the profession have been sufficient to induce our best men to become competitors at the examinations, and there are always plenty of good candidates for vacancies. Perhaps this is the reason why the authorities are beginning to make encroachments on what should be regarded as rights. To many perhaps the changes made may not appear important, to those affected by the changes they are so, and appear to indicate the inauguration of a period of interference, the result of which may be to the detriment of the service, of which they are at present proud to be members. For instance, no allowance is now made to a medical officer for the expenses involved in moving his charger from one station to another when he is on duty, whilst a combatant officer receives a station warrant which enables him to take his horse without expense whether the stations are far apart or not. This sometimes presses very hardly on a junior officer. Again, when a medical officer is attached to a native regiment for duty he is not given staff pay until he has passed the lower standard examination in Hindustani, although he performs all the duties which will devolve on him after the passing of the examination. This is all the more a hardship when the medical officer is sent to serve with a regiment on the frontier, which occasionally happens, and is refused leave from his post for the examination. He may be detained for several months on duty and yet receive no consideration, whilst the newly joined wing-officer or squadron leader is granted the extra pay on joining the regiment and before passing the examination

The question of private fees and presents from native chiefs who may have been patients is one into which I will not enter now; it is a large question and demands attention from one more conversant than myself with the facts of the case. There appears, however, to be little doubt that the British Resident at the court of a native potentate occasionally exercises his power in estimating the value of the services rendered by the medical officer at a sum which is, perhaps, hardly adequate, and conveys his decision in a manner which is not only harsh but unfair, whilst the snub which the would-be donor of the gift receives must make him chafe at the presence of the official meddler. Some of the presents which have been given have been possibly more than adequate to the service rendered in the opinion of government officials and have aroused their jealousy, but it is surely ill-advised for the Government to interfere too much in what should be a private transaction between doctor and patient. The prospect of obtaining high fees must be a strong inducement to many to perfect their knowledge and gain such a reputation as to cause a demand for their services by those well able to pay.

The abolition of the two posts of Surgeon-General in Bombay and in Madras, and the appointment of a Surgeon-Colonel with the added rank of Inspector General of Hospitals cannot be regarded as a step in the right direction. The officer so appointed has to do the same kind of work as the former holder of the post—the Surgeon General—and has the same amount of responsibility, but receives only the pay which was paid him before (so-called) promotion, and when he retires is only entitled to the pension of Surgeon-Colonel and not that of the higher rank.

I do not think, Sirs, that a finer body of public servants exists than the Indian Medical Service, it is simply invaluable to the Empire of India, and its members would probably be the last to complain, however unfairly treated. There is all the more reason for those at home with the efficiency of that service at heart to raise a word of protest against procedures on the part of the Government which are sometimes unfair, sometimes ungenerous, and occasionally hurtful, to those who, bound more or less by the rules of the service, are unable to raise their own voices in protest.

I am, Sirs, yours faithfully,
London, Nov. 16th, 1897. PRŒLIUM.

"DR. MENDINI'S HYGIENIC GUIDE TO ROME."

To the Editors of THE LANCET.

SIRS,—With reference to your reviewer's remarks in THE LANCET of Oct. 9th. p. 919, about the "reckless consumption of quinine," while I admit that its use at other times than during illness will to some extent interfere with its successful use when fever comes on, does not this, however, strike at the use of the drug as a prophylactic whether so used by "medical advice" or otherwise (residents in malarious countries do not need medical advice to use quinine; most know its value)? I wonder what your reviewer would think of the gigantic experiment going on in Bengal and Punjab gaols for the past three years. From June to November for three years past every prisoner in Bengal and Punjab (32,000 in all) has been given either with lime-juice or with sulphuric acid daily for five months five, ten or fifteen grains of either quinine or cinchonidine and no bad results have been heard of. If quinine is such a deadly "poison to the vaso-motor system" as Tommasi-Crudeli says how is it so constantly recommended for prophylactic use? I have now for three years for five months each year given cinchonidine sulphate to 1200 prisoners daily and have never seen anything approaching a bad effect; a few cases (and very few) of mild headache and buzzing in the ears are the worst results I have seen and I have been on the look out for such. On the contrary the results of the prophylactic issue have been, in my opinion, exceedingly good. In my own large central gaol there has been a death-rate of only 9·0 per mille in 1895 and 7·5 in 1896, a result which few prisons with over 1200 prisoners in non-malarious England will beat, and in the present very malarious and famine year the results of the cinchonidine parade have been also very good—viz., the mildness of the cases of ague and as in the past two years the almost total absence of bowel complaints. Moreover, the Bengal Government have, in my opinion, done great good by encouraging the "reckless consumption" of quinine by selling it in "pice packets" in every post-office in every village in populous Bengal. In a malarious country like either Italy or Bengal I should be sorry to see people wait for "medical advice" to take a dose of quinine.—I am, Sirs, yours faithfully,

Buxor, India, Oct. 27th. W. J. B.

BARRY ACCIDENT HOSPITAL.—The committee of the Barry District Nursing Association and Accident Hospital held a meeting on Nov. 23rd under the presidency of Mr. G. Neale, L.R.C.P. Edin., J.P. The secretary reported that the financial difficulties were considerable and added that he thought they would have to discontinue the work if the subscriptions were not increased. It was decided to fully consider the financial position of the association at the next meeting.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Lunacy Difficulty in Lancashire.

THE unfortunate *contretemps* which resulted from the refusal of the Mill-road Infirmary authorities to admit the wandering lunatic alluded to in an annotation in the last issue of THE LANCET has given occasion to the West Derby guardians to explain their position in the matter. The chairman of the Mill-road Infirmary pointed out at the last meeting of the board that the guardians had done their utmost to stir up the Lancashire Asylums Board to make further provision for lunatics in the county asylums and on several occasions had had some sharp passages of arms with the Asylums Board. He had no hesitation in saying that the blame rested entirely with the Asylums Board. He further stated that the Commissioners in Lunacy had backed them up in refusing admittance at Mill-road to police cases; but on the other hand no one had ever been refused when accommodation could be found. Other members concurred in the censure of the Asylums Board. At the annual meeting of the Lancashire Asylums Board held at Preston last week the chairman contented himself with saying that the board were being roundly abused for not providing additional accommodation in the county asylums. A new asylum is about to be erected at Winwick for the sum of £253,000, which will be ready for the reception of patients in two and a half years! The wards for male suicidal patients at Rainhill are also to be enlarged, fourteen single rooms are also to be added to the female refractory ward, and the admission wards are also to be enlarged, the total cost of which will amount to £5900.

Health Committee: the Cost of Disinfecting Houses.

Owners of house property in Liverpool have long felt it a hardship that the cost of disinfecting their tenants' houses after the occurrence of infectious diseases should fall upon them instead of upon the tenant or municipal authority. The considerate action of the health committee will now relieve them of a portion of their liabilities. After the first of January next the work of stripping the papers off the walls of infected houses will be done by the health committee; for which purpose the sum of £1000 will be included in the estimates for the year 1898. This concession has been brought about by the action of the Land and House Owners' Association which has agitated in the matter for a considerable time.

A Nurse's Quarantine: A Wholesome Rule.

A case of interest to employers of nurses in attendance on infectious diseases recently came on for trial before Judge Shand at the Liverpool County Court. The defendant's child was suffering from scarlet fever and was nursed by the plaintiff; the latter now claimed from the defendant one week's additional wages and expenses for the period during which she remained in quarantine. The rules of the nurse's home where she was employed prohibited her from accepting another engagement until she had undergone disinfection for one week. His Honour gave judgment for the amount claimed and remarked that the rule alluded to above was a wholesome one and clearly in the interests of the public.

Ladies' Charity and Lying-in Hospital: A New Departure.

A new departure is about to take place in the conditions for the admission of patients to the Lying-in Hospital. At present none but married women on production of their "marriage lines" are admitted. A more generous and humane spirit has now infused itself into both committees (ladies' and gentlemen's). The two committees have unanimously decided that some provision should be made for unmarried women in their first confinement. It has not yet been arranged whether the accommodation for such cases shall be in the hospital or in wards outside it. Additional funds, it is needless to say, will be required to enable the committees to carry out this most kindly act of charity. All right-thinking people will congratulate the joint committee on its large-heartedness and good common sense in introducing such a long-needed reform in the economy of the hospital, which after all is only in accordance with the gospel of humanity.

Annual Dinner of the Medical Students of University College, Liverpool.

In point of numbers the medical students' annual dinner, which took place on Saturday evening last at the Adelphi Hotel, was the most successful ever held; 150 gentleman sat down to an excellent repast. The students were in great "form" and thoroughly realised their importance on the festive occasion.

Bacteriologist to the Liverpool Corporation.

Professor Rubert William Boyce, of University College, Liverpool, has been appointed analyst to the corporation at a salary of £230 per annum, which provides for 200 analyses of food, including meat, milk, &c., and 100 analyses of water. The appointment although technically that of "analyst" will be for all intents and purposes bacteriological; but as the Food and Drugs Act only makes provision for the former title the corporation have no power to appoint a bacteriologist pure and simple. With the large field for scientific observation which Professor Boyce will now have at his command the experience gained will not only be of incalculable benefit to the city of Liverpool but also to the North of England in general for which his laboratory will eventually become the bacteriological depôt. It is needless to say that Dr. Boyce's new appointment is in addition to that of his professorship in University College and will be received with approbation by his numerous friends here.

Nov. 30th

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Western Infirmary, Glasgow.

No progress towards the settlement of the dispute with Professor Macewen can yet be recorded. The report submitted by the managers to the annual meeting on Nov. 26th expressed the view that the proposed rearrangement of wards was quite in harmony with the agreement between the University and the infirmary. At the same time it was allowed that the Senate does not assent to this view and it was intimated that negotiations are at present proceeding which the managers trust will soon lead to an amicable settlement. It is understood that whilst there have been conferences between the managers and the university representatives no terms of agreement have been arranged. The terms of the report led to some discussion at the meeting of the subscribers and an endeavour was made both to obtain more information and to bind the managers to restore the third ward to Professor Macewen's care. Neither of these attempts was, however, successful and the proposal to substitute the name of another gentleman for one of the nominees in the official list was also fruitless. The meeting therefore resulted in a decided victory for the managers, though all the speakers agreed in their estimate of the great value of Professor Macewen's work and expressed their conviction that every effort must be made to retain his services for the University and the infirmary. Other features of interest in the managers' report are the announcement of the decision of the managers to erect a new building for the out-patient department at a cost of £25,000, the building to include also two wards for the treatment of cases of skin disease; the proposed conversion of the old laundry into wards for the accommodation of cases unsuitable for admission to the general surgical wards; and the extension of the nurses' home. The treasurer's statement showed a deficit on the year of the sum of £3135 8*s.* 2*d.*, which includes a sum of £693 0*s.* 2*d.* charged against the infirmary from the Lady Hozier Convalescent Home, this branch of the organisation not yet being self-supporting.

Glasgow Royal Infirmary.

The proposal to commemorate the sixty years of the Queen's reign by a partial rebuilding of the infirmary has not met with the full success for which the promoters hoped. For this the difference of opinion as to the wisdom of the proposal is in part responsible. The actual sum raised amounts to £74,000, whilst £100,000 was the total desired. At a recent meeting of the committee in charge of the scheme a letter was read from Sir John Muir offering suggestions for the improvement of the fund and the perfecting of the reconstruction scheme. The basis of the proposal is that in the new pavilions, each of which is to contain eight wards, any donor of £5000 shall be allowed to name a ward, whilst a gift of £250 shall confer a similar privilege in reference to an individual bed. Sir John

Muir accompanies his letter by the offer of an additional £5000 provided four other donors of a similar sum can be found. The plans of the new buildings have been prepared and it is anticipated that the building operations will be commenced in the spring of next year. During the period of reconstruction some of the present wards will necessarily be closed and temporary accommodation for patients is to be provided outside the infirmary.

Dec. 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

General Medical Council: The New Crown Representative.

HER MAJESTY has been graciously pleased to nominate Dr. James Little, of Dublin, to succeed Dr. William Moore as the Crown representative of Ireland on the General Medical Council for the next five years.

A New Convalescent Home for Dublin.

A special meeting of the guardians of the South Dublin Union was held on Nov. 29th to consider the advisability of establishing a convalescent home for patients suffering from infectious diseases which would be practically an auxillary to the Hardwicke and Cork-street Fever Hospitals. A resolution was proposed that Kimmage House and lands in the neighbourhood of Terenure should be purchased for the purpose, but it met with very strong opposition on the part of the residents in that populous district. Sir Frederick Shaw read a memorial signed by many of them protesting against the injury to valuable property that would follow the adoption of the scheme suggested. It was pointed out that the Terenure College for boys and a large poor school educating about 300 children were both situated within a few hundred yards of the proposed site. After a long discussion the resolution was ultimately rejected by a large majority. The guardians are therefore baffled again in their efforts to establish the much required convalescent home. It will be remembered that a former attempt to locate the hospital at Blackrock raised a storm of very natural opposition from the residents there and from the press of Dublin as well. The public were informed on that occasion that Dr. Blyth and other eminent sanitarians had made very strong statements as to the long "striking distance" of infectious disease and the advisability of the complete and thorough isolation of hospitals containing it. It is evident that the guardians of the South Dublin Union must, next time, look further afield.

A Medical Deputy-Lieutenant.

Sir Francis Cruise, M.D., of Newtown-Cruisetown, Nobber, in the county of Meath and Merrion-square, Dublin, has been appointed a Deputy-Lieutenant for the county of Meath. Sir Francis Cruise is consulting physician to the Mater Misericordiæ Hospital.

Viceregal Visit to the Royal Hospital for Incurables, Dublin.

Her Excellency the Countess Cadogan paid a private visit to the Royal Hospital for Incurables, Morehampton-road on Nov. 29th for the purpose of inspecting the articles made by the patients for the sale of work which is about to be held there. Her Excellency made many purchases and spent a long time in the wards of the institution where she spoke kindly and graciously to many of the poor inmates, especially to those in the department for phthisical cases where, among many other interesting patients, is to be encountered a man who was orderly to General Gordon at Khartoum.

The O'Grady Memorial.

A meeting of the executive committee in furtherance of this memorial was held at 90, Stephen's-green, Dublin, on Monday evening, Nov. 29th, Sir George Duffey, M.D., in the chair. The hon. treasurers announced a considerable number of subscriptions. The committee having transacted all necessary business adjourned till Dec. 13th. Further subscriptions will be received by the hon. treasurers, Mr. M. A. Donnelly and Mr. George de Belle Ball.

The Belfast Municipal Elections.

These elections consequent on the enlarged area of the city were held on Nov. 25th and the results present two remarkable features—the success of the Labour candidates and of the members of the medical profession. The United Trades Council put forward six candidates, all of whom were successful, and in a number of the wards the Labour candidates headed the poll. Eleven medical men presented themselves as candidates for the corporation and of these six have been elected—Alderman Graham, M.D. R.U.I., Alderman Bigger, M.D. R.U.I., Councillor H. O'Neill, M.D. R.U.I. Councillor T. White, L.R.C.P., L.R.C.S. Edin., Councillor A. V. Browne, L.R.C.P., L.R.C.S. Edin., and Councillor O'Connell, M.D. R.U.I.

Letterkenny Water-supply.

At a special meeting of the Letterkenny town commissioners held on Nov. 25th it was reported that the tank at Glencar was in a most objectionable condition, half filled with a deposit of peaty matter and the spring filled up with filth and mud. The basin had never been cleaned out since 1880. It was decided to have the reservoir, drains, &c., of the present supply cleaned out, and a committee was appointed to devise means for supplying the town temporarily while these cleansing operations were being done.

Belfast Nurses' Home and Training School.

At the annual meeting held on Nov. 29th it was reported that this society was in a flourishing condition there being a balance of £251 17*s* 4*d*. in hand. Private cases to the number of 506 had been attended to in addition to the work done in the Belfast Royal Hospital, where there are twenty-four probationers at work as well as the staff and ordinary nurses. Special reference was made to the death of the senior nurse of the hospital, Miss Hanna, who for thirty years was staff nurse in the Belfast Royal Hospital, where by her kindly manner and good-nature she secured the respect and regard of all who came in contact with her.

The Payment of Consultants by Poor-law Guardians.

A man who had been found in the street by the police in an unconscious condition was recently conveyed to the Mitchelstown Union Hospital. Mr. Walsh, the medical officer, on examination discovered a depressed fracture of the skull and instructed the master of the workhouse to summon Dr. Corby, of Cork, by telegram. Prior to Dr. Corby's arrival the patient recovered consciousness and absolutely refused to permit an operation to be performed. Dr. Corby in due course applied to the guardians for his fee, but they declined to pay it on the ground that in accordance with the terms of a circular recently issued by the Local Government Board Mr. Walsh should have called in "the nearest doctor," as it was a case of emergency. In reply Dr. Corby pointed out that the circular referred to was issued in the interests of the sick poor and that the Local Government Board could never have intended that their circular should apply in every case of emergency as otherwise such incongruities might occur as the calling in of an ophthalmic specialist to attend a midwifery case. The guardians had also before them a communication from Dr. Corby which had been addressed by him to the Local Government Board but they persisted in their determination not to pay the fee. The decision of the Local Government Board is now looked forward to with considerable interest by consultants and Poor-law medical officers generally and Dr. Corby has decided to bring the matter before the superior courts if necessary.

Dec. 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Etiology of Cirrhosis in the Intemperate.

M. LANCEREAUX and M. Laborde have laid some further details of their researches into this matter before the Academy of Medicine. M. Lancereaux announced that the inquiry which was demanded to set aside their views had already been put in hand by M. Boix and M. Lestienne. He also read a letter from Dr. Viola, of Padua, which completely confirms his point of view. The Italian practitioner states that hepatic cirrhosis was unknown in the valley of the Po previously to the introduction of the wines of the South of France and those of Spain which wines are to-day all plastered. M. Laborde, on the other hand, read a letter from a medical man who has practised in Burgundy for thirty-eight years and who plainly proves that it is the alcohol in wine that must be held responsible for the occurrence of cirrhosis. He lays stress upon the fact that real Burgundy is not plastered but is over-alcoholised by the addition of sugar to the must

at the moment of fermentation. Alcohol must therefore be considered as an undoubted factor in the etiology of cirrhosis.

Bone Grafting.

At the same meeting of the Academy of Medicine M. Dubar, of Lille, read a paper upon the case of a little girl, aged ten years, in whom he had performed resection of the wrist for tuberculous disease. With the intention of giving some firmness to the resulting joint M. Dubar, after having removed the diseased bone, filled up the gap with fragments of bone taken from the femora of an eight days' old puppy. The wound was simply dressed and drained and the patient made an uneventful recovery and has good use in her hand. Her wrist is firm, painless, and moveable. In order to see what had become of the transplanted fragments an x ray photograph of the wrist was taken when it was seen that some of them were lying in the midst of newly-formed fibrous tissue and others had grown into the remnants of the carpal bones, while they had all slightly increased in volume.

Foreign Students.

At a recent meeting of the Municipal Council the Prefect of the Seine made known the decision of the Superior Council of the University as to the admission of foreign students. In his letter of Nov. 10th M. Gréard, the vice-rector, wished it to be known that foreign students would be admitted to the lectures of the various faculties of the University of Paris in accordance with the by-law of the Municipal Council passed in compliance with the proposal of M. Astier. In returning thanks to the University for its decision M. Astier said that he hoped that the measures to be taken in future would be the means of attracting foreign students to Paris.

The Causation of Pleurisy.

M. Le Damany has published the results of his researches into this subject founded on an examination of eighty cases of pleurisy of which fifty-four were first cases. From the point of view of pathology he considers that the parts played by cold or the rheumatic diathesis in the case of a first pleurisy are almost *nil*, but on the other hand one can almost always demonstrate in pleuritics the existence of a tuberculous soil. As to bacteriology M. Le Damany observed that inoculation carried out in a special manner of the exudation from fifty-five cases of pleurisy gave rise in forty-seven cases to evident tubercle in the guinea-pig, while in eight cases the results were negative. The effusion in four of these latter was bacteriologically sterile but clinically tuberculous. From these researches M. Le Damany considers that only one sero-fibrinous pleurisy is due to the invasion of the pleura by a microbe and that is tuberculous pleurisy. The other microbes which have been found in the pleural cavity produce purulent effusions.

Unjust Imprisonment of a Medical Man.

A recent proof of the animus of the magistrates against medical practitioners in France has just been afforded by the following case which has provided a second victim to succeed the unfortunate Dr. Laporte. In this instance the blow fell on Dr. Rémond, a country practitioner, settled at Villeneuve-sur-Yonne, where he was highly respected. One evening two gendarmes arrested him without any warning, took him to the railway station, put him in a prison van, and conveyed him to Paris where he remained in prison for six days without the nature of the charge being disclosed to him. At last a magistrate examined him and informed him that he was accused of having committed rape a year previously on a young woman who had given his name as being her assailant. He was further accused of having put her to sleep by means of a narcotic, under the influence of which she had robbed her father of 500 francs (£20), this money being spent in buying finery and in living extravagantly at an hotel for four days. She alleged that she had met him in the street while she was going for treatment to a hospital for nervous diseases. In vain did the unfortunate man protest that he had never seen the young woman, that she was hysterical and obviously lying, and that all the story of the narcotic was entirely false. The magistrate still kept him in prison. At last he was able to prove that on the day named by the girl he had been engaged in a consultation with a professional colleague. The girl then said that she had made a mistake in the day and the magistrate continued to believe her. After he had been in prison for forty-five days a number of witnesses gave evidence that they had met the young woman accompanied by an individual who had no resemblance to Dr. Rémond, so the magistrate was compelled to release him for want of evidence. This occurrence has caused great excitement in the medical world.

Opening of a Hospital for Incurables at Brévannes.

The authorities of the Assistance Publique are going to transfer from the Laennec Hospital to Brévannes those patients who are suitable to be taken in under the rules of the newly-founded institution. Such patients are chronic incurables, especially those suffering from phthisis and heart disease. As no hospital for acute cases will take in these patients no place can be found for them at present except in the wards of the Laennec Hospital, which is not nearly large enough for all. The Assistance Publique came into possession of the ancient château of Brévannes in 1883 and a portion of it has been fitted up as a hospital to contain 100 beds. The administration further erected a special block containing 100 rooms for married couples. The park, extending to seventy-five acres, is admirably fitted as a site for an establishment large enough to make up for the lack of room at the Laennec Hospital and not only to receive a large number of chronic cases but to place them under hygienic conditions vastly superior to anything which they would be able to secure in Paris. Until the time at which it shall be decided to support these patients at their own homes by the aid of a system of outdoor relief they will find a refuge at Brévannes. The new buildings, which will be open in a few days, only represent a quarter of the immense establishment which the Assistance Publique proposes to found at this place. In proportion as need arises and funds are obtainable the new buildings will be erected in succession. According to the general plan which has been decided upon for some time past the whole establishment when completed will consist of sixteen blocks with plenty of room for 3200 patients.

The Accusation against a Graduate of the Faculty of Medicine.

Sentence has just been pronounced by the Superior Court of the University of Paris in the case of the Professor of Natural History, M. Heim, referred to in THE LANCET of Nov. 13th. He was accused of having taken various scientific apparatus and specimens from different laboratories. The court sat for eight days for six hours a day, M. Darboux, Professor in the Faculty of Sciences and Member of the Institute, being President. A number of witnesses gave evidence, and it was alleged that M. Heim had hidden in a case labeled with his name various objects belonging to a neighbouring laboratory—objects from which he had scratched out the name of the original owner and substituted his own. Some books bearing the authors' dedication to the rightful owners were among the spoil. M. Heim, although found guilty, was not condemned to the maximum penalty—namely, dismissal—for the court allowed the existence of extenuating circumstances—viz., kleptomania—and merely ordered him to be suspended. M. Heim, however, has sent in his resignation to the Minister.

The Association of the French Medical Syndicates.

This body has just held its annual meeting during the course of which M. Comby was elected President. Many important decisions were arrived at, among others one asking that the regulations regarding medico-legal experts should be modified and another declaring that the number of medical men existing was already in excess of that needed for the population so that it would be useless to create any new schools of medicine or faculties for that such would merely flatter the *amour propre* of sundry little towns and appeal exclusively to electoral interests.

The late Professor Tarnier.

Professor Tarnier died on Nov. 23rd from a malignant intestinal growth which had increased very rapidly of late and which gave rise upon the day of his death to profuse and fatal hæmorrhage. His end, however, was quiet and painless and there were present his old pupils Pinard, Budin, Bonnaire, and others. He had been for some time surgeon to the Maternity Hospital and Professor of Midwifery at the Faculty of Medicine of Paris; he was also a member of the Academy of Medicine and Commander of the Legion of Honour. He was without doubt the chief obstetrician in France and very many accoucheurs of to-day have been his pupils. His writings include the "Treatise on Midwifery" which has become classic and which he began in collaboration with his pupil Chantreuil, but it was finished on the

death of the latter with the assistance of his pupil Budin. He was the inventor of a traction forceps with a separate traction handle, otherwise known as the "*forceps à aiguille*." He was not a good speaker but his clinical teaching at the hospital was of the very first kind. He was the introducer of the antiseptic system into midwifery and thereby converted the old maternity hospitals, which had been hotbeds of puerperal fever, into healthy places. He was seventy years of age at the time of his death.

Nov. 30th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The New Tuberculin.

SINCE my last reference to Professor Koch's new tuberculin in THE LANCET of July 17th a great many articles on the subject have appeared in the *Deutsche Medicinische Wochenschrift*. The first of the series was a communication by Dr. Doutrelepont, Professor of Dermatology at the University of Bonn. He has treated fifteen patients suffering from lupus, of whom three suffered also from tuberculous ostitis. The injections were performed strictly according to Professor Koch's directions, but temporary elevation of the temperature nevertheless occurred in a considerable number of the cases. The injections were resumed as soon as the temperature became normal. An exceptionally marked reaction followed the use of a new bottle of the remedy received on July 2nd, a fact quite in accordance with the observations of Dr. Bussenius as mentioned in THE LANCET of July 17th; the samples of the preparation therefore seem still to differ very much in strength. The other symptoms were nearly the same as those described in my last article. With respect to the therapeutic effect of the remedy Professor Doutrelepont states that the ulcerations cicatrised and some of the swollen lymphatic glands decreased, but some of them suppurated and had to be removed by operation. The weight of the patients increased. The new remedy seems to be beneficial in lupus and is certainly much better than the old preparation. Too rapid an increase of the dose injected should be avoided as undesirable symptoms may be thereby produced.—The opinion of Dr. Leick, assistant physician to the medical clinic of Greifswald University, is quite different from that of Professor Doutrelepont. He has treated fifteen patients suffering from pulmonary tuberculosis all of whom had tubercle bacilli in the sputum. In no case did the amount of tuberculin injected reach the maximum of twenty milligrammes authorised by Professor Koch. Increased temperature and urticaria-like exanthems were observed by Dr. Leick in addition to the complications described by Dr. Bussenius and other observers. Although the majority of the patients improved during their stay in the hospital Dr. Leick is of opinion that the same effect would have been obtained without the tuberculin treatment. He states that in accordance with Professor Koch's directions only such cases were selected for treatment as were in an early stage of the disease and not yet pyrexial. The state of those patients, who naturally belonged to the poorer classes, as a rule very soon changes for the better without any specific treatment—merely by the good food and nursing and the other advantages afforded by residence in a hospital. A real improvement was obtained in two instances. One of these patients was a young man who after entering the hospital suffered from slight pyrexia, but his temperature became normal before the beginning of the treatment. When he left the hospital his weight had increased by 3½ kilos (= 7¾ lb.). Tubercle bacilli, however, continued to be found. The other patient, a woman, also showed an increase of weight, but she had been several times in the hospital already and had always become better without treatment. It it thus not certain that the new tuberculin has had any beneficial influence in these cases.—Professor Rumpf, of the General Hospital at Hamburg, has tried the old tuberculin, Maragliano's anti-tuberculous serum, and the new preparation. He says that the old tuberculin was very useful for deciding a doubtful diagnosis, that in some instances of peritoneal tuberculosis it even afforded quite satisfactory results, but that in many cases of pulmonary tuberculosis the illness was undoubtedly made worse. He also says that Maragliano's serum had no therapeutic effect at all and as it produced syncope in several instances it was now no longer used. The opinion of Professor Rumpf on the new tuberculin is as follows: (1) It produces infiltration at the place of injection without suppuration; (2) when the dose is very slowly increased the maximum amount may be reached, but fever may nevertheless occur in the course of the treatment; (3) the strength of the preparation is not the same in every instance; (4) it produces not only fever but cyanosis, giddiness, increase of the pulse, &c.; (5) It is uncertain whether immunity can be obtained by the remedy; and (6) it may be cautiously tried in the early stage of pulmonary tuberculosis provided that a reliable preparation can be manufactured.—Dr. Baudach, physician to a private sanatorium at Schömberg (Würtemberg), has obtained much better results than any of the preceding observers. The cause of this difference is probably that his patients being of a better social position than those of the general hospitals and the university hospitals could as a rule be kept longer in the sanatorium, and moreover enjoyed all the advantage of open-air treatment. They nearly all increased in weight, the physical signs in the lungs became better, and the general state of the patients, notwithstanding the above-described complications produced by the injections, was satisfactory. Dr. Baudach expresses confidence in the new method which however must be combined with the usual hygienic and dietetic treatment.—Cases of laryngeal tuberculosis have been treated with tuberculin by Dr. Herzfeld, of Berlin. Of seven cases only one showed an improvement perceptible by laryngoscopical examination. In the others the tuberculous process either remained stationary or extended to parts of the larynx which had previously been healthy. Dr. Herzfeld concludes that the usual local treatment would probably have given a better result.—A very remarkable observation is published by Dr. Müller, physician to the department of Diseases of the Ear in the Charité Hospital. A patient suffering from pulmonary tuberculosis and otitis media received injections of the new tuberculin. During the course of the treatment it was found that the affected ear not only did not improve, but the disease extended to the other ear and tubercles which eventually ulcerated were developed on the membrana tympani, perforation of the membrana being the result.—Cases of pulmonary tuberculosis and lupus are also described by Dr. Gerber, of the out-patient department of Königsberg General Hospital, who concludes that tuberculin has done good in some cases and therefore deserves a fair trial.—Dr. Kaatzer, of Hanover, has also formed a good opinion of the new remedy. In the majority of his cases of pulmonary tuberculosis the bacilli disappeared and there was a considerable increase of weight. His results are the best hitherto published.—In lupus Dr. van Hoorn, of Amsterdam, has obtained a marked improvement in a series of cases, whilst in tuberculosis of the bladder the injections were followed by pain so severe that the treatment had to be conducted very cautiously.—Dr. Petruschky, of Danzig, one of Professor Koch's pupils, has published an elaborate memoir on the selection of cases for the treatment, its technical details, and the results obtained of recent years with the old tuberculin, which he has continued to use in his practice.

It will thus be seen that there are wide divergencies of opinion among the medical men who have tried the new tuberculin. All of them agree that it sometimes produces undesirable symptoms which however have never led to any serious complication. It is further the general opinion that the manufacturers have not yet succeeded in producing a preparation of uniform strength. In lupus it has undoubtedly given good results; with respect to pulmonary tuberculosis some writers express much enthusiasm, but others almost a complete condemnation. Further experience is obviously required and the editors of the *Deutsche Medicinische Wochenschrift* in closing the series of articles on the subject remark that several years must elapse before the real value of Koch's treatment can be definitely ascertained.

Dec. 1st.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Russian Red-Cross Expedition to Abyssinia.

DURING the past few years Russia has sent a considerable number of expeditions, scientific, political, and others, to Abyssinia. One of the largest of these expeditions was that

of the Red Cross Society which was sent early last year to tend the sick and wounded Abyssinians in the war against Italy. An interesting description of their experiences was recently given by M. Shtchusef, a medical student who accompanied the expedition, in a paper read before the St. Petersburg Medico-Chirurgical Society. The party followed the usual route to Abyssinia save that the Italians declined to allow them to pass through Massowah, and they were consequently obliged to pass through the French colony of Djibuti. The Somali desert took two weeks to cross. When Harrar was reached the war was already over; but a large number of patients soon came under treatment, and these included cases of leprosy, syphilis (secondary and tertiary), scabies, eye diseases, gonorrhœa, gastric catarrh, and one case of molluscum fibrosum. The Negus Menelik is described as a man of fifty-eight years of age, his face marked with the traces of small-pox, and at the time the Russians visited him he was suffering from ophthalmia. He showed much interest in medical matters and was present at several operations, including an ovariotomy. He even asked the members of the expedition if they had not brought a Roentgen apparatus with them! The inoculation of small-pox is said to have been practised in Abyssinia for the past two hundred years. Menelik, it is gravely stated, was desirous of sending a paper on this subject to the International Medical Congress through M. Mandon, a Frenchman, but for some reason he did not carry out his intention. According to M. Shtchusef the Abyssinians treat many forms of disease with iron; syphilitics are treated with some unknown herbs and also by exsudatives, hot baths, and eliminants. In the holy town of Aksum there is said to be preserved a book on the treatment of diseases which has been in existence for 2000 years. The Abyssinians are almost of European type in their features but their skins are black. They are monogamists; with them the religious form of marriage does not admit of divorce and consequently civil marriages are common. Justice is administered in public and punishments are awarded on the principle of an eye for an eye. For example, a man who had murdered another with a sword would be executed by the sword. For less grave crimes—as, for example, theft—the punishment may be the loss of the left hand or the right foot. M. Shtchusef, since reading the paper, has again started for Abyssinia, where he is now attached to the Russian Embassy. On the eve of his departure he read another paper before the Russian National Health Society on the Climate and Balneology of Abyssinia. Near Harrar, he stated, are a number of hot mineral springs, occupying the craters of extinct volcanoes. These springs have no little reputation among the natives for their medicinal powers. Particularly efficacious is the hot spring of Alisa-Babi. The reader of the paper was requested by the society to make further observations upon these springs on his return to the country and also to make inquiries as to the prevalence of malarial fevers and the local modes of treating them.

General News.

The museum of anatomy and surgery recently built to the memory of Pirogoff and to be called the Pirogoff Museum was opened in St. Petersburg on Sunday, Oct. 26th (old style). The total funds collected for the purpose were 115 000 roubles and the building has cost 85,000 roubles (about £9000). The opening ceremony was attended by the Prince and Princess of Oldenburg and a large number of other distinguished guests.—One of the worst inundations of recent years visited St. Petersburg on Nov. 4th (16th). A violent gale from the south-west, accompanied by snow and frost, heaped up the water at the mouth of the Neva to a height of 8½ ft. above the average. The result was that the greater part of the city was for some hours deeply under water. The facts that a large number of the poorer classes in St. Petersburg live in cellars and basements and that the inundation occurred when the thermometer was some 7° F. below the freezing point, so that there will be no possibility of thoroughly drying such habitations before next summer, combine to make the calamity a very serious one for a large section of the community.

St. Petersburg.

MEASLES AT EXMOUTH. — The elementary schools at Exmouth have been closed owing to an outbreak of measles.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

The New York Quarantine.

DURING 1896, 252,350 steerage passengers were examined at this station and out of 12,127 vessels which arrived at the principal ports of the United States during the same year (1896) 6241 or more than one half of the entire number were inspected at the New York Quarantine Station. The work of 1897 will show about the same result. During this period plague, cholera, small-pox, yellow fever, and typhus fever have existed in numerous ports throughout the world which have been in constant communication with New York, and although numerous cases of small-pox and yellow fever have reached this harbour no infection has passed the station. This fact will be appreciated when it is remembered that during certain portions of last year, and also of this, from 200 to 300 cases of yellow fever and an equal number of cases of small-pox daily existed in the city of Havana. As this place is about three and a half days' journey by water from New York it is within the period of incubation of both diseases. In order that passengers arriving from Havana and other ports of the north side of Cuba shall not be a menace to the health of this country and at the same time that commerce should not be unnecessarily interfered with it is required that all persons coming from Havana shall be supplied with a certificate to the effect that they have had yellow fever or are natives of Cuba. In either case these persons are rarely subject to this disease and can be safely allowed to pass quarantine. Persons who do not present these certificates on their arrival are removed to Hoffman Island, there to remain until the difference in time between the period occupied by the passage and five days (the period of incubation of yellow fever) has elapsed. A number of persons thus held have developed yellow fever and have been transferred to the hospital at Swinburne Island. All vessels arriving from Cuban ports are subjected to disinfection. Their crews are not held for observation as these persons are not allowed to leave the vessels which are not docked but remain in the stream where they are loaded and unloaded.

Midsummer Day Schools.

The New York Association for Improving the Condition of the Poor have undertaken an experiment of vacation instruction by providing a six weeks' midsummer term for the children who loiter in the heated streets of New York while the public schools are closed. The Board of Education when the project was first presented promptly agreed to coöperate by donating four public school buildings in crowded and destitute districts and lent such other aid as was in their power. A corps of teachers under a superintendent was organised and has worked faithfully and well. The teaching has been wholly of the manual training and kindergarten order and it is hoped that it may prove to be an object lesson so encouraging as to win wider adaptation in the ordinary curriculum of the common winter schools. A children's playground with the novelty of a sand garden was opened; it was given over to the use of boys in the morning and to the girls in the afternoon and some 200 of them romped there every day. In one vacation school about 400 boys and girls were taught kindergartening, paper folding, drawing, clay modelling, and sewing, with elementary industrial work for older boys. The hours at all the schools were from nine to twelve. By this means 1000 children have been cared for and kept off the streets during the hot summer months, which means a new life to the children of poor working people.

The New York Zoological Park.

The preliminary plans of the New York Zoological Park, to be located in South Bronx Park, one of the new acquisitions of Greater New York, have been completed and work upon them will soon be commenced. These plans include those for the lion house, monkey house, elephant house, bird house, winter house for birds, reptile house, tropical ruminants house, main restaurant, and administration buildings. Among the secondary structures there will be a flying cage, eagle and vulture aviary, buffalo house, deer barns, wolf and fox dens, bear dens, sea-lion pond, pheasant aviary, mountain sheep shelter, and duck aviaries. Particular attention has been given in connexion with this

park to as complete a system of sewerage and water-supply as science and money can create. The different houses and the outer grounds will be kept in almost as aseptic condition as the wards of a well-regulated hospital.

Lodge Medical Officers not allowed in Quebec.

The College of Physicians and Surgeons of the Province of Quebec which has the power to revoke all licences to practise medicine or surgery in the province recently passed the following resolution: "In view of the extent to which the members of the medical profession are defrauded of proper remuneration for professional services owing to the acceptance by many of positions as medical officers to various benefit societies, lodges, &c., where remuneration is arranged for by contract, it be considered beneath the dignity of our profession to accept and hold such positions. In order that all professional services shall be awarded remuneration not less than the tariff adopted by this board it is hereby enacted that members of the College of Physicians and Surgeons of the Province of Quebec shall be prohibited from accepting or retaining the position of lodge medical officer where a stipulated amount is paid annually or otherwise for professional services amounting to less than the minimum tariff adopted by this board or from attendance upon families, groups of families, or other associations at contract prices which name a stated sum for a certain term—usually an annual fee—and that no physician shall be permitted to retain membership in this College or practise in this Province who accepts such positions."

Nov. 19th.

Obituary.

HENRY WILLIAM FREEMAN, F.R.C.S. IREL., L.R.C.P. LOND., J.P.

MR. H. W. FREEMAN died at his residence, the Circus, Bath, on Nov. 28th, at the age of fifty-five years. He was born at Westward Ho, Devon, in 1842, and after education at the Bideford Grammar School went to the Middlesex Hospital, London, where he studied with marked success, taking prizes and holding resident appointments. He qualified M.R.C.S. Eng. and L.S.A. in 1864, taking the L.R.C.P. Lond. the year following and the F.R.C.S. Irel. in 1882. In 1864 he was appointed resident medical officer to the Royal United Hospital, Bath, and about a year afterwards commenced practice in that city; later he was appointed honorary surgeon to the hospital and in a few years became one of the best known of the Bath surgeons. In 1887 he was elected on the town council and the following year was appointed mayor; this office he held most successfully and at its expiration Mr. Freeman was made an alderman. In 1893 he was placed on the Commission of the Peace for the city and also for the county of Somerset. Mr. Freeman had for many years done his utmost to develop the baths of Bath and more recently had introduced the Nauheim system. When the new Queen's Baths were opened by the Duchess of Albany in 1888 Mr. Freeman presented a beautiful statue, "The Angel at the Pool"; this now stands over the fountain in the pump-room. In 1887 he offered Hamilton House, on Lansdown, as a convalescent home for the city, but the necessary funds for endowing it not being subscribed the scheme fell through. Mr. Freeman's principal work in addition to several surgical papers was "The Thermal Baths of Bath" (1888) and only last month he published a smaller work entitled "New Methods of Cure at Bath." Mr. Freeman was owner of an extensive thoroughbred stud at Weston. His health had been weak for some time, but his fatal illness commenced soon after the opening of the new pump-room in October. He leaves a widow with whom great sympathy is felt. Mr. Freeman will be much regretted and missed in Bath and his death will cause a blank in the city which it will be impossible to fill.

WATER-SUPPLY OF SHANKLIN, ISLE OF WIGHT.—At a meeting of the Shanklin district council held on Nov. 19th it was resolved that a deputation wait on the Local Government Board to urge them to give their decision on the scheme for obtaining water from Wroxall, which is about two miles distant from Shanklin.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, NOV. 25TH.

THE Council met again to-day, Sir WILLIAM TURNER being in the chair, and resumed the work of the session.

The Resignation of Dr. W. Moore.

The CHAIRMAN said the President wished him to read the following letter:—

Privy Council Office, Whitehall,
Nov. 24th, 1897.

SIR,—I am directed by the Lord President of the Council to acknowledge the receipt of your letter of the 23th inst. stating that Dr. William Moore, one of the Crown Nominees in the General Medical Council, has resigned his seat in that Council.

I am, Sir, your obedient servant,
J. H. HARRISON.

Sir Richard Quain, Bart., M.D., 67, Harley-street, W.

On the motion of the CHAIRMAN the letter was entered on the minutes.

The Case of George Hamilton Wyse.

After sitting for fully an hour in private to receive a recommendation from the Penal Cases Committee the Council proceeded to the consideration of the case of George Hamilton Wyse, of 51, Talbot-street, Southport, Lancashire, registered in Ireland, June 27th, 1871, as Lic. Apoth. Hall, Dubl. 1871; Lic. R. Coll. Phys. Edin. 1871; Lic. R. Coll. Surg. Edin. 1871, who had been summoned to answer the following charges on the complaints of the Medical Defence Union and the Wigan Medical Guild:—

(1) The complaint relates firstly to a medical practice carried on under his name at 88, Adelphi-street, Preston, in the county of Lancaster, and secondly to a medical practice carried on under his name at 95, Wallgate, Wigan, in the same county.

(2) The charge against him in respect of the practice at 88, Adelphi-street, Preston, is that he covers an unqualified person named George Wyse, who is, or purports to act as, his assistant, and whom he permits and enables, under cover of his presence, name, and qualifications, to attend on and administer medical relief to patients and give medical relief to patients and give medical certificates and generally to carry on at the said place a medical practice as if he (George Wyse) were a duly qualified and registered practitioner.

(3) The charge against him in respect of the medical practice at 95, Wallgate, Wigan, is that he covers an unqualified person named Cowan, whom he permits and enables, under cover of his name and qualifications, to attend on and administer medical relief and treatment to patients and give medical certificates, and generally to carry on at the said place a medical practice as if he (Cowan) were a duly qualified and registered practitioner.

(4) The complainants are in the matter of the covering of George Wyse the Medical Defence Union, Limited; and in the matter of the covering of Cowan the Wigan Medical Guild.

Mr. R. B. D. Acland appeared as counsel for Mr. Wyse and Dr. Bateman for the complainants.

Dr. BATEMAN, in opening the case for the complainants, said that there was no dispute as to the facts.

Mr. ACLAND, interposing, said it would be necessary to call Mr. Wyse and his son to dispute the most serious allegations in the charge made against Mr. Wyse. The reason why a declaration had been made without disputing the facts alleged was that Mr. Wyse had not the slightest suspicion until he received various letters that any charge had been made against him. When he first realised that there really was a charge he wrote to his Lancashire professional colleagues to withdraw it, but he was informed, in reply, that the matter was before the General Medical Council. On learning this he placed himself in communication with his solicitor, who wrote to the Council asking for an adjournment of the case, but that had been refused, and thereupon, without really understanding the gravamen of the charge, the declaration was drawn up in the form in which it was now put before the Council.

The CHAIRMAN informed Mr. Acland that he would have full opportunity to call Mr. Wyse and his son for examination.

Dr. BATEMAN thereupon proceeded with his opening of the case. He read a series of affidavits upon which he relied as proving the charges brought by the Medical Defence Union. He stated that he had no documentary evidence from the Wigan Medical Guild.

Mr. MUIR MACKENZIE thereupon read one of several documents received from the Guild in question, but as copies of the rest had not been furnished to the accused all except the one read were withdrawn.

Mr. WYSE went into the witness-box and in reply to Mr. ACLAND said he had been in practice for twenty-five years and during a little over four years had carried on his present practice at Wigan. He emphatically denied that he acted as cover to Cowan. He lived at Southport, but it could not be said that he practised there because he had seen months pass without any patients calling on him. In September, 1896, he opened a surgery at Preston and in the second week of February of the present year he closed it. The first time he heard of any complaint being made against him was last month when he received a letter from the solicitor of the General Medical Council. Before that he had heard not a word of complaint either in connexion with the practice at Wigan or that at Preston. His son lived with him at Southport and went to Preston with him every day the surgery in the town was open, which meant about four days a week. His instructions to his son were to see if any patients were waiting and if so to detain them until he came and not to sign any certificates. Shown two certificates he admitted the one was in the handwriting of his son, who apparently had acted contrary to his instructions on this particular occasion.

Cross-examined by Dr. BATEMAN witness said that his son was a student in his fifth year of study, while Cowan was not exactly a student; he was about thirty-six years of age and had studied in Dublin.

Mr. WYSE, Jun., also gave evidence. He explained the nature of the instructions given him by his father with regard to the practice at Preston and admitted that he had done wrong in signing the certificate in question.

Mr. ACLAND, addressing the Council on behalf of Mr. Wyse, complained of the manner in which the charges had been prosecuted and especially of the absence of notice to his client. Not one hint of malpractice was given to Mr. Wyse during the whole of the time that the surgery at Preston was open, and it was only on Oct. 29th of the present year when he received the communication from the solicitor of the General Medical Council that he heard of the proceedings which had been taken. In connexion with the Wigan charge only one case was brought up and the case resolved itself into whether they were to believe Mr. Wyse or the woman who had sworn the affidavit.

The Council then deliberated in private on the case.

The CHAIRMAN thereafter addressed Mr. Wyse as follows: I have to inform you that the Council having, as you know, gone very carefully into the case have come to the conclusion that the charges made against you have been proved to the satisfaction of the Council—that is to say, that you have acted as a cover, but the Council have not gone so far as to say that you have been guilty of infamous conduct in a professional respect; they have not pronounced that yet. And they have instructed me to say to you that the further consideration of the charges made against you is adjourned until the next session, which will probably be held in the month of May, when they expect you will be able to come and show them that such a charge as has been made against you can no longer be made—namely, that you have given up all such practice. The Council wish you to understand clearly that they regard this question of covering as a charge of a most serious kind against a professional man and they hope you will take the matter seriously to heart and that you will be able to report in May that no such charge can in the future be brought against you.

The Council then adjourned.

FRIDAY, NOV. 26TH.

The Council resumed work to-day, Sir WILLIAM TURNER being in the chair.

The Case of E. E. Hooper.

The REGISTRAR reported that since the meeting of the General Medical Council in May last information had been received of the death of Mr. E. E. Hooper, the further consideration of whose case was adjourned to the present session of the Council.

The Case of William John Patterson.

The Council proceeded to the consideration of the case of William John Patterson, of 33, Rodney-road, London, S.E., registered in Ireland August 27th, 1890, as Lic., Lic. Midwif. 1890, R. Coll. Surg. Irel.; Lic. Apoth. Hall, Dubl., 1890, who had been summoned to appear before the Council on conviction for the following misdemeanour:—

That he, on the 31st May, in the year of our Lord, 1897, at Brentford, in the County of Middlesex, unlawfully and indecently assaulted Fanny Amelia Ker.

The following is a copy of the certificate of conviction that had been received:—

Middlesex } These are to certify that at the Midsummer Quarter
to wit. } Sessions of the Peace, holden at Guildhall, Westminster, for the County of Middlesex, on Saturday the 3rd day of July in the year of our Lord 1897, William John Patterson was in due form of law tried and convicted on a certain indictment against him, for that he on the 31st day of May in the year of our Lord 1897, at Brentford in the said county, unlawfully and indecently did assault Fanny Amelia Ker, against the form of the statute, &c. And the said William John Patterson was thereupon ordered to be imprisoned and kept to hard labour in Her Majesty's prison at Wormwood Scrubbs for the space of nine calendar months. And these are further to certify that the record of the said conviction is still unreversed and of full force and effect. Given under my hand at the Guildhall, Westminster, this 27th day of July in the year of our Lord 1897.

RICHD. NICHOLSON,
Clerk of the Peace for the said County of Middlesex.

County of Middlesex, Guildhall, Westminster.

Mr. FARRER said that although there was no appearance Mr. Patterson had put in a defence. He should like, however, to point out that this Council could not go behind the conviction which they must assume to have been lawfully and properly obtained. Mr. Patterson had written a letter on Oct. 30th, 1897, in reply to the summons, the principal point of the letter being an earnest appeal to postpone the case until he could be heard by the Council after his liberation from prison. Mr. Patterson insisted that he had done nothing more than kiss the girl and that this act was the result of some unaccountable and sudden impulse.

Mr. MUIR MACKENZIE said that the duty of the Council was imperative. In only one case—and there special circumstances arose—had they left a man upon the Register who had been convicted.

The Council decided to instruct the Registrar to erase the name of Mr. Patterson from the Medical Register.

The Case of Charles Day.

The next business was the consideration of the case of Charles Day, of 1, Benwell-road, Drayton-park, N., registered in England Jan. 1st, 1859, as Mem. R. Coll Surg. Eng. 1841; Lic. Soc. Apoth. Lond. 1846, who had been summoned to appear before the Council to answer the following charge on the complaint of the Medical Defence Union:—

That he had acted and acts as cover to an unqualified person named Alfred Henry Day, who, acting or purporting to act as his assistant, was and is permitted, authorised, and enabled by him to carry on medical practice and administer medical treatment to and sign certificates for patients as if he (Alfred Henry Day) were a duly qualified and registered practitioner.

The complainants were the Medical Defence Union, Limited.

Dr. BATEMAN said he wished to explain how the Medical Defence Union appeared in this case. About August certain newspaper cuttings were sent to the Union with reference to an inquest upon the body of a child called O'Sullivan and to certain proceedings taken by the Registrar-General in a police-court against an unqualified man for issuing a certificate. These were forwarded to this Council to take whatever steps were thought proper.

Mr. CHARLES TOWNLEY, Superintendent Registrar of St. Mary's district, Islington, examined by Dr. BATEMAN, gave an account of the inquest and what transpired at it. The mother of the child, he said, gave evidence to the effect that Mr. Day's son attended the child, saw it several times and treated it, and after the death she was handed a certificate signed "Charles Day" although at the time Mr. Day, sen., was out of town on holiday. The District Registrar refused to accept the certificate, the coroner was communicated with, and on the instruction of the Registrar-General proceedings were taken in the police-court against the son who was fined £10 and £1 13*s.* 6*d.* costs. The coroner said that there was no fault to find with the treatment of the child by the son.

Mr. MUIR MACKENZIE read Mr. Day's written defence. His son, he said, had been his assistant for many years. He had really been his pupil, his hospital course having been interrupted. Having lost his wife and being in ill-health he (Mr. Day) left home for two days giving his son instructions to send to a neighbouring registered practitioner if any serious matters arose in his absence requiring special treatment. He gave his son instructions how to treat this particular child. On the second day of his absence the child succumbed and his son thinking that the case had been practically attended by him signed the certificate in his father's name. They both deplored what had occurred, but he was bound to say in his own defence that his son had

acted without his consent and against his instructions. He could not understand how the employment of an unqualified assistant residing in his own house and under his own direct supervision and control could be construed as an infringement of the Act and to support his view he quoted the notice given in THE LANCET in the column where unqualified assistants were advertised. This notice, he said, represented the feeling generally entertained by the medical profession on the subject. As to his son he had already suffered for the error he had committed.

Mr. DAY then addressed the Council, submitting that he had conducted his practice with all possible care.

After the Council had deliberated in private for a time,

The CHAIRMAN intimated to Mr. Day that they had come to the conclusion that the charge made against him had not been proved to their satisfaction. But the Council wished him to state that the difficulty into which he had been put had been owing to the employment of an unqualified assistant and to the opportunity which had been given to the unqualified assistant to transgress the law—that was to say, to sign a death certificate, which he had no right to do. Consequently in his further practice he would have to be very careful indeed how he carried on his work with the aid of an unqualified assistant, supposing he continued to employ one.

The Case of William Robert Nuttall Maloney.

The next business was the consideration of the case of William Robert Nuttall Maloney, of Roden-street, West Melbourne, in the Colony of Victoria, registered in England March 3rd, 1886, as Lic. Soc. Apoth. Lond. 1885, who had been summoned to appear before the Council to answer the following charges as formulated by the Council's solicitor:—

The matters charged against Mr. Maloney relate to public advertisements by him in Calcutta, Melbourne, and Belfast, and also to his conduct in associating himself with a so-called medical electrician, and in practising and conducting in public a medical electrical treatment; and it is complained against him that he seeks to attract patients by a system of extensive public advertisements of his name and address and qualifications, and of the said treatment as practised by him, in and by which persons in need of medical aid were invited to consult him professionally and adopt the said treatment, and that the advertisements systematically published by him were of themselves of a character discreditable to a professional man.

Mr. FARRER said that Mr. Maloney had been summoned and in reply had sent certain letters of defence. The matter had been brought to the notice of the Council by the Royal College of Surgeons of England, who had removed Mr. Maloney's name from their list of Members. He submitted to the Council specimens of the advertisements as well as a newspaper account of a meeting held in the Ulster Hall, Belfast. In one of his letters Mr. Maloney suggested that he had been sufficiently punished by being deprived of his place in the Membership of the Royal College of Surgeons of England. As to the electrician with whom he had been associated for a time he had fled the country when his antecedents became known. Mr. Maloney further said that his qualifications had been inserted in no advertisement with his knowledge. He explained his non-appearance before the Council with the statement that he was standing for re-election as a member of the Legislative Assembly of the Colony of Victoria.

Mr. BRYANT gave some account of the experiences of the Royal College of Surgeons of England with Mr. Maloney.

The Council found the charge proved and adjudged Mr. Maloney to have been guilty of infamous conduct in a professional respect and directed the Registrar to erase his name from the Medical Register.

The Case of William Masson.

The Council proceeded to the consideration of the case of William Masson, of Cottingham, East Riding of Yorkshire, registered in Scotland, December 12th, 1888, as M.B., Mast. Surg. 1888, Univ. Aberd., who had been summoned to appear to answer the following charge on the complaint of Mr. Edward Ball, of Southport, registered as Lic. R. Coll. Phys. Edin. 1886; Lic. R. Coll. Surg. Edin. 1886; Lic. Fac. Phys. Surg. Glasg 1886, viz.:—

That he had acted and acts as cover to an unqualified person named George Watson, who, acting and purporting to act as his unqualified assistant, was and is permitted, authorised, and enabled by him to carry on medical practice and administer treatment to patients as if he (Watson) were a duly qualified and registered practitioner. It is particularly alleged against him (Masson) that George Watson attended a woman named Higgins in her confinement, using instruments upon her, and that on the death of the woman he (Masson) signed and gave a death certificate purporting to certify that the woman had died of eclampsia.

Mr. Farrer, the Council's solicitor, attended to advise the Council on the case, and Mr. Muir Mackenzie was present as legal assessor. Dr. Masson, the accused, appeared in response to the summons along with his counsel, Mr. J. Scott-Fox, instructed by Mr. George Trenam, solicitor.

Mr. FARRAR stated that Mr. Ball, the complainant, did not attend. He had sent a letter which intimated that he did not intend to be present at the investigation; he had supplied information which he had received from the friends of the deceased and he did not see what use he could be.

Dr. BATTY TUKE wished to know who, then, was the prosecutor in the case.

The CHAIRMAN replied that the case had been before the Penal Cases Committee and inquiry had been ordered.

Mr. MUIR MACKENZIE read the documents in the case. These included a first letter, dated Aug. 2nd last, and a further letter in support of the charge, enclosed with the latter being answers to a series of questions, some of them drawn up by the President of the Council and also extracts from a letter addressed to a certain "Dear Fred" by the deceased's husband.

Dr. GAIRDNER said that in this letter of Mr. Ball they had two or three very grave assertions of which, so far as appeared, they, in the absence of the complainant and witnesses for him, would have no proof whatever.

Mr. SCOTT-FOX submitted that in the circumstances the natural course that ought to be adopted was to dismiss the case without a moment's consideration. That would be the course adopted in any regularly constituted court of justice. However, as the Council wished inquiry he would proceed and Dr. Masson who was present would answer any questions addressed to him. Pointing out that Mr. Ball's letter to the Council contained the sentence, "I wish to keep my name silent in the matter," he said he thought that threw some light on a case for the accusations raised in which there was no evidence whatever. The indictment was unfair; it was absolutely unjustified. There was no denial on the part of his client that George Watson was unqualified, but Watson had acted during some twenty years as assistant to his late father, Dr. Samuel Watson, to Mr. Chambers, who succeeded the latter, and to Mr. Baldwin, who followed Mr. Chambers. He had had great experience and had attended down to the present perhaps as many as 2000 cases of childbirth. He did not assume the title of "doctor" and there was no name-plate on his door or anything to show that he practised on his own account, which he did not. Counsel read Dr. Masson's written explanation in answer to the charge. This showed that he had purchased the practice in 1893 from Mr. Baldwin for £750. He continued Mr. Watson as assistant, but he had never heard it suggested that he was other than an unqualified assistant. Dr. Masson had never asked Mr. Watson to take upon himself and assume or perform any duty which was outside of duty that could be performed by unqualified assistants. Though he lived in the house occupied by his late father there was no surgery there and not during Dr. Masson's connexion with Cottingham had there been complaint or suggestion of complaint made to him as to Mr. Watson, who had not and never had had any pecuniary interest in Dr. Masson's practice. The summons to appear before the Council was the first intimation Dr. Masson had that any explanation was required in the case of Mrs. Higgins. Her relatives had made no complaint before they left the district. Counsel concluded by asking the complaint to be dismissed with the contemp which it merited.

In answer to members of the Council Dr. Masson stated that he had seen the woman three times before her death and the certificate he gave stated the true cause of death. He admitted that Watson had told him that he used forceps. He had no authority to use instruments. It was in violation of his instructions that he did. They were not accused's instruments but had belonged to Watson's father. It was untrue that the accused was dominated by the local influence of Watson and it was decidedly untrue to say that Watson had the whole practice of the place in his hands. Under the agreement he (Dr. Masson) obtained on taking over the practice he could dismiss Watson at three months' notice and he could restrict him from assisting any other practitioner in the district.

In answer to Mr. SCOTT FOX, Dr. Masson said that Mr. Watson never took cases for his own profit and any fees received by him were always handed over to accused.

The case having been closed the Council deliberated in private. On the re-admission of the public

The CHAIRMAN, addressing Dr. Masson, said he was instructed to tell him that the charge made against him had been proved to the satisfaction of the Council, but the Council were not prepared at this time to judge him guilty of infamous conduct in a professional respect. They, however, would further consider the charge during their next session which would be held in May, 1898. He thought Dr. Masson would understand from what had happened that he would have to reconsider his position as to the employment of this unqualified assistant.

Dr. MASSON: He is now dismissed.

The CHAIRMAN: Oh, he is now dismissed. Very well, the further consideration of the charge is adjourned till May next when you will be asked to appear before the Council.

The Council adjourned.

SATURDAY, NOV. 27TH.

The Council resumed work to-day, Sir WILLIAM TURNER being again in the chair.

Nomination of Dr. James Little.

The REGISTRAR read a letter from the Privy Council announcing that Her Majesty in Council had nominated Dr. James Little to be for five years a member of the Council for Ireland in place of Dr. William Moore, resigned.

The Case of Julius Mostertz.

The Council proceeded to the consideration of the case of Julius Mostertz, of 13, Salisbury-road, Noel-park, N., registered in England as Lic. Soc. Apoth. Lond. 1893, who had been summoned to appear before the Council to answer the following charges on the complaint of the Medical Defence Union, Limited:—

1. The complaint relates to a dispensary or establishment carried on or conducted at 13, Salisbury-road, Hornsey, under the name of the Noel-park Dispensary.
2. The complaint is that Mr. Mostertz, being a registered medical practitioner, acts as cover to an unqualified person named George W. Johnson, who, purporting to act as his assistant, carries on at the said Noel-park Dispensary a medical practice, and who, under cover of Mostertz's name, presence, and assistance, is enabled to and does attend on and administer medical treatment to patients and carry on such medical practice as though he were a duly qualified and registered medical practitioner.
3. The complainants are the Medical Defence Union, Limited.

Dr. Bateman, with Mr. Hempson, solicitor of the Medical Defence Union, appeared for the complainants and Mr. Ward appeared for Mr. Mostertz.

Dr. BATEMAN, opening the case, said that some years ago a Mr. Johnson, M.R.V.S., opened at 13, Salisbury-road, Wood-green, a chemist's shop under the style of the Noel-park Pharmacy, Mr. Johnson being a registered chemist as well as a veterinary surgeon. This Mr. Johnson died and the pharmacy was carried on by the widow with the assistance of a man known as Mr. George W. Johnson. Some little time ago the medical men and others in the district began to hear very frequently of a "Dr. Johnson" engaged in practice, and finding that there was a certain amount of unqualified practice going on and being determined to put a stop to it the medical men called a meeting by post-card. The meeting was to be at Mr. Tomlin's house and the post-card set forth that its purpose was to consider what steps should be taken to cause the unqualified practice to cease. The post-cards were sent to all the medical men in the district whose names could be remembered, and among the rest to Mr. Mostertz at his residence in Lordship-lane. Next morning Mr. Tomlin received a letter signed by "G. W. Johnson." The letter started with an extract from the notice as to unqualified assistants appearing in the advertisement columns of THE LANCET and then went on to say that the writer courted the fullest investigation as to whether he had infringed the regulations of the General Medical Council. He admitted having prescribed for hundreds of people since he had resided in Wood-green, but when he had been asked to visit he had told them that he could not do so as he had not quite finished his curriculum, but that the doctor to whom the dispensary belonged would call upon them and could easily do so because he lived only a hundred yards away. At the meeting, which was attended by a large number of medical men, Mr. Mostertz after a time got up and said that he had handed his post-card to this Mr. Johnson. The meeting passed a resolution to the effect that unless Mr. Mostertz severed his connexion immediately with Mr. Johnson, either by withdrawing absolutely from Noel-park Dispensary or dispensing with the services of Mr. Johnson, the matter would be reported to the General Medical Council. Later a letter was received from Mr. Mostertz saying that he could not allow any practitioner or combination of practitioners to dictate to him how he was to conduct his dispensary so long as he had not been guilty of unprofessional conduct and further that when Mr. Johnson left as he intended to leave for Australia he (Mr. Mostertz) would not hesitate to engage another unqualified assistant. Another meeting was held at which it was decided that the matter should be laid before the Medical Defence Union in order that proceedings might be taken before the General Medical Council. There were declarations by Thomas William Tyrrell and Albert Bright. The former said that he called at the dispensary and saw Mr. Johnson, who felt his pulse and looked at his tongue and said he was suffering from gastric catarrh and indigestion and would give him a medicine. Mr. Tyrrell said he saw Mr. Johnson make up the medicine and he handed it to him and gave him directions as to its use. The charge was 7*d.* and when Mr. Tyrrell remarked that it was very cheap Mr. Johnson replied that he could not charge west-end prices in Wood-green. Mr. Tyrrell also described an interview with Mr. Mostertz and told how on another occasion he went to the dispensary and saw certain certificates and qualifications with regard to Mr. Mostertz displayed. The declaration of Mr. Albert Bright had reference to a visit paid by him to the dispensary.

Mr. THOMAS WILLIAM TYRRELL was then called as a witness and in reply to Dr. BATEMAN said he was a clerk residing in East Dulwich and was instructed by Mr. Hempson, solicitor of the Medical Defence Union, to visit the Noel-park Dispensary.

Cross-examined by Mr. WARD witness denied that he gave a wrong address.

By Dr. BATTY TUKE: He was in the employment of Mr. Hempson as a clerk.

Dr. A. CAMPBELL, examined by Dr. BATEMAN, said he called at the dispensary and asking for the doctor saw Mr. Johnson. Witness was examined by Mr. Johnson, who prescribed for him and charged him 6*d.* for medicine and advice.

Dr. BATTY TUKE: Why did you go there?

WITNESS: Curiosity pure and simple.

Dr. BATTY TUKE: Were you ill?

WITNESS: No, I was not ill. I said I had a cold.

Dr. BATTY TUKE: How did your evidence come here?

WITNESS: Because I live in the neighbourhood.

Dr. BATTY TUKE: How did it come under the observation of the Medical Defence Union?

WITNESS: I let all the doctors in the place know I had been there as a joke.

Dr. BATTY TUKE: Were you paid for going?

WITNESS: No; it was I who paid.

Mr. BRUDENELL CARTER: May I ask you if you took the medicine?

WITNESS: No, sir; I was asked if I would take a dose there and then but I said I would wait until I got home.

Mr. R. F. TOMLIN was the next witness and in answer to Dr. BATEMAN said he lived in Wood-green, not far from Mr. Mostertz and it was he who called the meeting.

Cross-examined by Mr. WARD: He had never complained that Mr. Mostertz called himself Dr. Mostertz. He invited Mr. Mostertz to his house along with the other medical men of the district and he remembered that as Mr. Mostertz left the house he asked him to give up this class of practice and make himself agreeable and join in with the rest of the medical men.

Dr. R. E. FOOTT, one of the medical men who attended the meeting, also gave evidence.

Dr. BATEMAN then intimated that this closed the case for the complainants.

Mr. WARD, addressing the Council on Mr. Mostertz's behalf, said the question to decide was whether or not Mr. Johnson was practising in this place under cover of Mr. Mostertz. He proposed to call Mrs Johnson, who would tell the Council that since the death of her husband in May last she had carried on the pharmacy which she had a perfect right to do under the Pharmacy Act as the widow of a qualified man. By a fortunate accident Mr. Alfred William Johnson came to stay there while his brother was ill. During the illness he looked after the shop and after the death he assisted the widow in the business. In August last Mr. Mostertz went to Mrs. Johnson and engaged at a weekly rent of 10*s.* the room which he now used as his dispensary. Mrs. Johnson was the tenant of the house and paid the rent and taxes for it. Mr. Mostertz employed

Mr. Johnson at a salary of £1 per week, but never with the permission of Mr. Mostertz had Mr. Johnson practised. Mr. Mostertz had been careful to see all the patients himself and he left word with Mr. Johnson to call for him if any person came after dispensary hours. If Mr. Johnson did what Dr. Campbell had stated then he had exceeded his instructions and he submitted that the Council should not visit upon Mr. Mostertz the fault or offence of his assistant. In his deposition Mr. Mostertz said that so far as he knew there was no such person as "George W. Johnson" in existence. He employed Alfred William Johnson as a dispenser and paid him £1 a week for his work in that capacity and for keeping his books and announcing patients. When he saw Tyrrell he told him that Johnson was his unqualified assistant acting under his supervision as he (Johnson) had acted for twenty-three years to eight other registered practitioners in different parts of the country.

Mr. MOSTERTZ then went into the witness-box. He denied that he acted as cover to Johnson in any way. He simply dispensed the medicines and in some cases he went out with him to assist him, as for instance he did in a case of fractured pelvis. Johnson derived no other income from the dispensary than the £1 per week which he paid him, though he believed he received some sort of payment for the assistance he gave his sister-in-law.

Cross-examined by Dr. BATEMAN witness said that since the issue of the new notice of this Council with regard to unqualified assistants he had told Johnson not to prescribe for anyone. Although in his time Johnson had attended many midwifery cases he had never attended any for him. As Johnson had been an assistant for twenty-three years he could scarcely be described as a medical student. It was the case that the certificates of witness had been placed in the window, but that was because a rumour had been spread about the neighbourhood that if any of his patients died there would be an inquest and the place would be shut up.

By Mr. MUIR MACKENZIE: When he engaged Johnson in May the latter solemnly declared that he had never treated patients at the dispensary and among other things he said he had sent a case of broken arm that came in to Mr. Tomlin.

By Dr. GLOVER: Witness attended all scarlet fever cases though he might send Johnson to see that the disinfection was carried out.

Mrs. ELIZABETH JOHNSON was next examined. She explained that her deceased husband had let the room to several medical men, including one who was a member of the Medical Defence Union, and that since she became a widow she had paid the rent and rates.

Mr. WARD read a declaration from Mr. Alfred William Johnson in which he denied that he had ever attempted to practise. As to Tyrrell he saw at once that there was very little the matter with him. If there had been anything serious about him he should have referred him to Mr. Mostertz.

The Council having deliberated *in camerâ* on the case,

The CHAIRMAN announced to Mr. Mostertz that the decision was that the charge had been proved to the satisfaction of the Council, but the Council had taken the matter into consideration and determined to adjourn further proceedings until next session when he would be cited to appear and would have to show that he had dissolved his connexion with this person whom he had been employing as an unqualified assistant.

The Council then adjourned.

MONDAY, NOV. 29TH.

The Council resumed to-day, Sir WILLIAM TURNER acting as chairman.

Preliminary Examination—Important Resolutions.

Dr. BATTY TUKE submitted a report from the Education Committee on the measures to secure a higher standard of preliminary examination for intending medical students. He said that before he read the report he would state the general principles which had actuated the committee in framing it and he thought he might be allowed to foreshadow as far as possible the policy which the committee thought should be followed by the Council in dealing with preliminary examination. In order to do this he must ask the Council to allow him to give a *résumé* of the work done during the last few years. He should speak of that work only since the establishment of the Education Committee. That preliminary examination had received a great deal of attention was marked by the fact that it had been the subject of no fewer than ten reports. He did not propose to go into the details of all these reports but would confine himself to a general outline. They showed that the Council had insisted upon candidates having a knowledge of mathematics (including arithmetic), of Latin, of one modern language, and of English. These were the subjects prescribed by the Council and were the subjects which were now demanded by the Council. They had been prescribed in general terms because the Council thought it was better to leave to the genius of each examining body to determine how the examination was to be carried out. But in order to preserve its hold on the examinations year by year the committee had overhauled the subject and reviewed the subjects of examination with the object of suggesting improvements. They had erased the names of some examining bodies and they had added new bodies. They had also effected an alteration in procedure by ordering that all the subjects should be passed at one time with, he was informed, very good results indeed, for it had eliminated from various examinations the weaklings—men who had gone up for examination time after time in the hope of passing at last. On the whole there had been during the last nine years a general improvement. That it was so was shown by the gradually increasing standard, the characters of the questions, and the increased percentage of rejections. But notwithstanding the improvement he was sure he expressed the general view of the committee when he said that the time had come when it was not only necessary but highly desirable that the standard of preliminary examination should be raised still further. The question had long exercised the minds of the committee. The great difficulty they had had to face was how was the change to be carried out. They were agreed that the standard should not be raised suddenly, but that the more cautiously and more carefully they proceeded the more likely was their action to be successful. The Council must remember that they possessed no power of insisting on preliminary examination and they had no statutory power of enforcing registration. That nowadays all medical students passed preliminary examinations and registered was due not to Statute but to recommendations of the General Medical Council and to the recognition of these by the various educational and licensing bodies of the kingdom. Preliminary examination and registration had become part of the system of medical education and registration, owing to the cautious action of the General Medical Council and the loyalty of the bodies. Still there was another thing that should be remembered and that was that no legislation could succeed that was in advance of public opinion. He thought it would be seen that no legislation in connexion with preliminary examination could proceed in advance of the general educational condition of the country. He was quite willing to admit that at one period of its deliberations the committee hoped to be able to submit to the Council a recommendation by which the standard of the preliminary education would be raised to a higher degree than that recommended in the report to this session, but they found that if not absolutely impracticable it was at least inexpedient to recommend any such step at present. They believed that any such step would dislocate the existing arrangements of bodies which had acted loyally towards the Council, and, moreover, that the general educational condition of the country would not warrant a sudden jump. At the same time the committee kept steadily in view the necessity there was that the standard of medical examination should be raised. They thought that all minimum examinations should be brought up to the level of those accepted by the universities, realising the fact that the standard of preliminary examination was not only being raised but would be still further raised. What he hoped was that after the lapse of a certain number of years under the conditions now recommended the Council would be in a position to exclude all junior examinations and accept only the senior examinations of the universities and governing bodies; and he anticipated after the lapse of a further period that they would find themselves in a position to advise all the bodies to institute a preliminary scientific examination which would include not only the subjects of general knowledge but also the subjects of chemistry and physics, leaving the full five years for strictly professional study. The report, which he would now read, was as follows:—

On June 9th, 1896, the Council agreed to the following motion:—"That the Education Committee be requested to consider whether the time has not come for erasing from the list of recognised preliminary examinations the 'Examination for a Second-Class Certificate (of First or Second Division) of the College of Preceptors.'"

This motion formed the subject of a report presented to the Council on Nov. 25th, 1896. In this report the committee expressed their opinion that it was inexpedient to make more stringent the conditions applicable to one of the recognised examinations without imposing the same restriction on the other examinations of the same grade; but they concluded the report by making two recommendations to the Council, the second of which forms the subject of the following report. The terms of this recommendation are as follows: "That the Council instruct the committee to consider the requirements of the several junior preliminary examinations now recognised by the Council and to report on the steps that may be necessary for enforcing a higher and more uniform standard therein; that the recommendations which the committee may propose with this object be brought before the Council at the November Session of 1897 in order that if approved they may be brought into force on Jan. 1st, 1900."

This recommendation was adopted by the Council after substitution of the words "at the earliest possible date" for "January 1, 1900."

The result of the inquiries the committee have conducted during the past year is that the minimum standard of certain of the junior examinations in general knowledge now recognised by the Council is insufficient to guarantee such a degree of general education as is desirable for persons entering on the study of a liberal profession, and that a considerable number of medical students receive certificates of having passed such examinations though they obtain low marks in particular subjects. The committee have had under review not only the questions submitted to candidates in these examinations, but also in certain instances the written answers of candidates who have passed on the lowest marking. The latter method of inquiry especially served to convince the committee that the general standard of these examinations is too low. The committee have to thank the Examining Boards, and in particular the College of Preceptors and the Scottish Educational Institute, for the facilities afforded them for conducting their inquiries. Various educational authorities have also been consulted and their general opinion is that the minimum standard of the preliminary examinations should be raised; that no difficulty stands in the way of doing so provided due notice be given to the public and that the effect of such a measure might be expected to have a beneficial effect on school education in general. The Reference instructs the committee to consider the requirements of the several junior preliminary examinations and to suggest steps which might lead to their improvement. After deliberation the committee have come to the conclusion that it would be impracticable to obtain a higher standard in the lowest class of these examinations by merely enjoining a higher pass-mark in any or all of the required subjects. The examination papers themselves are in general of too elementary a character, being evidently adapted to the ordinary capacity of pupils of less than fifteen years of age.

The committee are of opinion that the best means of securing the object in view is in the first instance to insist on a higher class of examination, the preparation for which must imply more extended training and wider study such as might fairly be expected to have been undertaken by students who had at least attained the age of sixteen years. The various local and matriculation or entrance examinations conducted by the several British universities are in general of this character; they include the required subjects prescribed by the Council, usually with others that are educationally related to them; and the regulations under which they are conducted are, in the opinion of the committee, adapted to ensure fuller and more mature school education in the candidates who succeed in passing them. The standard of examination the committee think desirable now to fix is such as can be readily passed by an average pupil on leaving the form next below the highest of a good school, and this standard they believe can and ought to be attained at the present time by students proposing to enter the medical profession. The committee do not suggest any increase in the number of obligatory subjects to be taken up by candidates, believing that if a student stands the test of a sufficiently searching examination in English, Latin, Mathematics, and in Greek or a second modern language he will be prepared to commence the study of the various sciences ancillary to medicine. The committee, however, recognise that it may before long be desirable to raise still further the minimum standard of preliminary education in such wise that no examination of lower standard than (for example) the senior local and higher grade examinations should continue to be recognised by the Council. These latter examinations are adapted to the capacity of students of about seventeen years of age, and require a wider range of study and a more detailed knowledge of particular subjects than the junior local examinations and certain of the university matriculation or entrance examinations. If the recommendations of this report be adopted by the Council the committee propose to watch carefully the effects thereby produced on the general education of medical students, to accumulate information on the subject from the various educational authorities, and thus to obtain materials for reports to be presented from time to time to the Council on the practicability of a further advance. For these reasons the committee have resolved to advise the Council to confine its recognition on and after Jan. 1st, 1899, to such examinations as the local and matriculation or entrance examinations conducted by the universities of the United Kingdom and to the examinations of corresponding standard held by the College of Preceptors, the Scottish Education Department, and the Intermediate Education Board of Ireland; and to intimate to other bodies in the United Kingdom and to the Indian, colonial, and foreign examining bodies that on and after the same date no examination of a lower class than those above referred to will be recognised by the Council.

The following are the examinations conducted in the United Kingdom which are regarded as at present of a lower standard than that which should be required:—

Royal Colleges of Physicians and Surgeons in Ireland.—Preliminary Examination.

College of Preceptors.—Second-Class Certificate of First or Second Division.

College of Preceptors.—Preliminary Examination for Medical Students (standard of Second-Class Certificates).

Educational Institute of Scotland.—Preliminary Medical Examination.

So far as the United Kingdom is concerned the step now proposed, if it be approved of by the Council, will serve to secure a higher and more uniform standard of preliminary examination; but it is manifest that as regards the Indian, colonial, and foreign universities and colleges the procedure will require some time. Not only must due notice of the impending change be given to these bodies, but the new standard of examination must be indicated to them, and they must have time to re-arrange their regulations and to satisfy the Council that their amended examinations are worthy of recognition. On the receipt of evidence to this effect the committee will prepare and issue a list of examinations which they regard as of sufficient standard. The committee are therefore of opinion that it would not be expedient for the Council to enforce the new standard of preliminary examination before Jan. 1st, 1899.

The committee submit the following recommendations:—

1. That the Council intimate to all the examining bodies whose examinations in general education are recognised by the Medical Council as qualifying for the registration of medical students that on and after the 1st day of January, 1899, no certificate of lower standard than that of the matriculation or entrance and the junior local examinations of the universities of the United Kingdom will be accepted for registration.

2. That the Education Committee be instructed to revise the list of examinations recognised by the Council with a view to removing from it on the 1st day of January, 1899, those examinations which are of a lower standard than that indicated in Recommendation 1.

He (Dr. Batty Tuke) moved the adoption of the first of these recommendations.

Dr. MACALISTER seconded the motion.

Mr. BRYANT agreed entirely with this admirable report. He was exceedingly pleased at it, for he felt with the committee that it was desirable gradually to raise the standard of education. He was also pleased to know that the Conjoint Board of the Royal Colleges of Physicians and Surgeons in Ireland was willing to conform to the wishes of the Council and drop their preliminary examinations in arts and that the College of Preceptors and the Educational Institute of Scotland were willing to help the Council in this matter. He thought there was little room for criticising the report.

Mr. TICHBORNE pointed out that while the Apothecaries' Hall of Dublin was the first of the professional bodies to drop the preliminary examination in general knowledge the Royal Colleges of Ireland were the last.

Mr. BROWN thought that the report was a step in the right direction, but he must confess he was disappointed in finding that the committee had not seen fit to increase the number of compulsory subjects. It would, in his view, have been greatly advantageous to the profession in the future if they had recommended the French language as an obligatory subject.

Dr. BRUCE did not quite agree with Dr. Batty Tuke that the Council had no power over the preliminary examination. He thought the Medical Act gave them power of the kind.

Sir RICHARD THORNE had listened with a good deal of attention to Dr. Batty Tuke's opening statement, but he must say that during it and the reading of the report his hopes underwent considerable oscillation, now rising and now falling, as Dr. Tuke proceeded. Dr. Tuke in one breath would tell the Council the extreme importance that existed of raising the standard; in the next he would caution them that education should not go in advance of public opinion. He entirely disagreed with Dr. Batty Tuke there, for he thought that education should be just so far in advance of public opinion as to lead public opinion. He had no hesitation whatever in saying that the advance which they had made in the elementary education which was necessary for entrance to the medical profession, so far from having gone in advance of the general education of the country, had lagged behind in the most lamentable, the most deplorable manner. They were cautioned that a rise in the standard of examination might lead to depletion of medical students. He could not see that there would be anything more advantageous to the profession than depletion. He knew that there were many Oxford and Cambridge men hanging about hospital doors without being able to find work to do, and what was wanted was depletion not only of medical students but of those who had not even the education of an ordinary gentleman. Adverting to the option the candidate now has of taking "Greek or a second modern language" he pointed out that if the modern language was selected it would be only one in addition to his own, which naturally he ought to know. He did wish that either French or German was made a compulsory subject. Nowadays there was such a vast amount of medical literature in French or German that members of the profession should have knowledge of one of these languages, if not of both, so as to be able to go for their information to the original and not be dependent on translations. Apart from these points he did not think the report was altogether logical. He read that "the committee have come to the conclusion that it would be impracticable to obtain a higher

standard in the lowest class of these examinations by merely enjoining a higher pass mark in any or all of the required subjects. The examination papers themselves were in general of too elementary a character, being evidently adapted to the ordinary capacity of pupils of less than fifteen years of age." These examinations were perfectly hopeless. If they were hopeless and could not be raised it was certain that the recommendation they were discussing did not bear on the matter and, unless he misunderstood, when taken in connexion with that paragraph was hardly consistent. If he were asked for an amendment he should have to ask the Education Committee to point out the examinations which being hopeless could not be accepted.

Mr. BRUDENELL CARTER said he would be very glad to fall in with the suggestion made by Mr. Brown that at least the French language ought to be made obligatory. He did not think it would be possible to make it one of the compulsory subjects for 1899, as the interval would not be sufficient to allow candidates to prepare; but all the same they should decide that in some not distant year French should be compulsory. He should prefer French to German. At the same time he should be very glad if the Council could see its way to enforce a really high standard in the English language. The knowledge of English possessed at present by the profession generally was not extensive enough. It seemed to him that students should be encouraged to know more about it seeing that they had to think and speak in it and as practically it was the first requirement of the medical men of this country. The recommendations might be modified to secure compulsorily a better knowledge of English and knowledge of French.

Dr. LEECH considered that all the members of the Council would be glad that the committee had gone so far that some of them were disappointed that it had not gone further. It was perhaps not very satisfactory to find that the standard of examination which the committee thought desirable was such as could be "readily passed by an average pupil on leaving the form next below the highest of a good school," but it seemed to him that if a boy learned mathematics well and passed a good examination in Latin, English, and Greek he did enough. He would not put any further subject compulsorily upon him.

Sir WILLIAM THOMSON, as a member of the committee, had nothing special to say about this report. A report of this kind was always one of compromise and in the present case the members of the committee sat for three days and discussed the *pros* and *cons.* of the matter with a great deal of earnestness. What he particularly rose for was to express his agreement with Mr. Carter in regard to the necessity that existed for a higher standard of English in the medical profession and also to express his sympathy with the proposal to make one of the continental languages an absolutely compulsory subject, preference being given to French. The reference to the committee did not include these matters, but they were such that the committee might well consider them and take such steps as to increase the value of the examination they now recommended.

Dr. MACALISTER, replying on the whole debate, was glad that the general principles of the committee's procedure had met with a fair amount of approval on the part of the Council, though the points raised by Sir Richard Thorne showed that the argument was not stated so clearly as it might be. What the committee were asked to do was to examine the various junior examinations—that was to say, those that were not senior or called senior. When they looked into these examinations they found that there were two well-marked levels—one representative by the local examinations of most of the universities, all of which were pretty fairly of one standard and were regarded as fairly equivalent of each other; the other class represented by examinations of a standard lower than the university local examinations. A little investigation showed that the papers and the second class of examinations were of such a character that if even full marks were awarded for them that would not be sufficient to meet the object in view. Consequently, merely to insist upon higher marks would not have improved things, neither would any increase in the number of subjects. So the committee had decided as the report set forth. With regard to the amount of change which was involved he thought the gravity of it was not fully appreciated. The step proposed to be taken was not quite a small one. The students who were examined and registered yearly numbered something like 1600, and of that number 480 or so passed on to registration by means of those examinations which it was intended to recognise no longer as sufficient. Accordingly when it was seen that at one stroke they cut off more than a fourth of the number which at present secured registration as students the gravity of the step would perhaps be a little more appreciated than it seemed to be. As to making French obligatory, his opinion was that if that were done it would result practically in leaving out Greek. He would prefer to see logic rather than Greek struck out. They had endeavoured five years ago to get logic omitted from the optional subjects, but at that time they were unsuccessful. He should not be sorry to see it go now.

The recommendation was then put and unanimously adopted.

Dr. BATTY TUKE next moved the committee's second recommendation. He expressed the wish that they could have brought the new system into operation more speedily, but that was out of the question owing to the amount of correspondence that the change would involve.

Dr. MACALISTER seconded, and after a remark by Sir RICHARD THORNE about men getting through with a sixpennyworth of logic.

The second recommendation was also unanimously agreed to.

On the motion of Dr. BATTY TUKE, seconded by Sir RICHARD THORNE, it was further agreed:

That on and after Jan. 1st, 1899, Logic be omitted from the list of optional subjects in the preliminary examination.

Mr. BROWN thought the feeling of the Council was favourable to a motion for the inclusion of French amongst the compulsory subjects, say, from the year 1901.

The CHAIRMAN was of opinion that this matter should not be pressed at present but should be left to the committee.

Dr MACALISTER indicated that adequate means would be taken to let the educational world know of the changes they had just agreed to.

Sir CHRISTOPHER NIXON moved:—

That it be referred to the Education Committee to consider and report to the next session of this Council the procedure necessary for the institution of a preliminary examination for medical students of a standard uniform throughout the United Kingdom, such examination to be wholly conducted by the General Medical Council.

In supporting this proposal Sir Christopher Nixon said that it was only a few hours since he learned from his friend Sir William Thomson that in the session of November a year ago Sir William Thomson himself had moved a resolution somewhat to the same effect, and as he would not like to steal Sir William Thomson's clothes while he was bathing it would be only fair of him now to give Sir William Thomson the option of taking up the motion. (Sir William Thomson indicated that he had no wish to do so.) Then, Sir Christopher Nixon went on to say, the reason why he proposed the resolution was that the present mode of holding examinations seemed to him to be largely responsible for what he might call the degradation of the profession and to a large extent instrumental in the production of those penal cases which absorbed so much of the time of the Council. He was quite aware of the desire of the Council to raise the standard of preliminary examinations by every means in its power, but even the debate they had just been engaged in showed how little power the Council had in connexion with these examinations or in securing what was so important—a minimum standard. There were so many bodies conducting these examinations which the Council did not inspect—had not, he supposed, the power to inspect—and which he did not think could in any way be regarded as uniform in standard. The percentage pass was low—33 per cent. in some cases—and the result was that at the very entrance to the profession they had men cramped by a deficiency in elementary knowledge. He thought the report just adopted was of such a character as to imply that the Education Committee would not be remarkably successful in securing their object. To his mind the only way of attaining that object was to establish an examination which would be absolutely controlled by the General Medical Council. Short as his acquaintance with that Council was, he had seen enough to convince him that there was no other body—at any rate, none he knew of—to whom he would more willingly entrust the interests of the profession.

Mr. HORSLEY formally seconded the motion.

Sir WILLIAM THOMSON did not like to express his entire approval of this proposal. He was afraid that at the present moment the Council had no power to carry out such a scheme.

It was certainly a scheme in which he personally took the greatest interest, but a modification of the Act of Parliament under which the Council acted would be necessary before effect could be given to it.

Mr. BRUDENELL CARTER, who mentioned that he had always entertained the view that the profession should keep the key of its own door, remarked that he should be exceedingly glad if the suggestion in the proposal was one that could be adopted as he was quite sure that to place it in the power of the General Medical Council to carry out the reforms that were now required would add immensely to the culture and dignity of the profession.

Dr. CHURCH looked upon the proposal as a dangerous one. Supposing it were competent for the Council to conduct the preliminary examination for the medical profession he thought the area too wide to be undertaken by one body. He thought a higher standard of education was now possible by the competition among educational bodies that went on at present than could be obtained if there was only one body controlling the whole set of examinations. He for one could not agree that it would be wise on the part of the Council either to fix the standard of preliminary examination for candidates for the medical profession or undertake the labour of maintaining that standard.

Mr. TEALE pointed out that the direction in which the Council had hitherto gone was to put the preliminary examination in the hands of the educational bodies thoughout the country and more particularly in the hands of the universities. He saw no reason why they should make a change. Though they understood medical education the General Medical Council were not the body to undertake general education.

Dr. LOMBE ATTHILL thought that if Mr. Teale's views were carried out it would simply mean that the medical education would fall into the hands of the universities.

Sir WILLIAM TURNER: Oh, no.

Dr. LOMBE ATTHILL was sure the Council would never attain an efficient standard of education until they had examining boards for the different parts of the kingdom which they themselves controlled and could visit and inspect.

Dr. MACALISTER wanted to know if the mover and seconder of the proposal had ascertained whether there was legal power to give effect to their proposal and whether they were prepared to start a school with the object of securing the fitness of candidates for the examination suggested.

Mr. HORSLEY pointed out that all the motion did was to ask the Education Committee to consider and report upon the procedure that it would be necessary to adopt to institute and carry on a preliminary examination to be conducted by the Council. Neither he nor the mover intended to raise the general question of the advisability of entering upon such a scheme. Both he and Sir Christopher Nixon, both new members, were ignorant of what the procedure necessary would be and they wanted information. That practically was all the motion amounted to.

The CHAIRMAN: The motion certainly does involve the institution of an examination by this Council.

Dr. BATTY TUKE: This is not a matter for the Education Committee at all. It is one for the legal advisers.

Mr. HORSLEY: If the Education Committee find that any legal point is involved they could consult the legal advisers. All we ask is that the Education Committee consider how it could be done. I do not see that this motion binds the Council to anything.

Dr. MACALISTER: Six months hence it would be held that it did bind the Council.

Sir WILLIAM TURNER said there was no doubt that it had been the aim of the Council to leave examinations in arts to the educational bodies. It would be rather inconsistent after their efforts to get the licensing medical bodies to give up their preliminary examinations for the Council to come in and say that it would itself now take over the whole of the preliminary examinations for medical students.

Dr. LEECH objected to any resolution which would lead to the General Medical Council undertaking the preliminary examination. Such a change in the present system would do education a great deal of harm and no good.

On a division the motion was rejected by 19 votes to 7, 2 members declining to vote.

Accumulation of Examinations.

The next business on the notice paper was the following:—

Report of a conference between the Examination and Education Committees on Mr. Teale's motion of June 2nd, 1896: The Examination Committee begs leave to report that in conformity with the wish of the Council it has conferred with the Education Committee. Pending additional information on the subject it is not prepared to make any recommendations at the present session, but asks leave from the Council to continue the reference.

Sir DYCE DUCKWORTH, as chairman of the Examination Committee, in moving that the report be entered on the minutes, said that last session it was decided that a conference should be held on a point which was referred to the Examination Committee and which caused so much interest and attention when raised by Mr. Teale in what he (Sir Dyce Duckworth) would call his (Mr. Teale's) celebrated motion on the accumulation of examinations. That motion referred to the large number of rejections at examinations which it was said was believed to be caused by the great pressure of examinations the students were subjected to. That matter had been considered by the Examination Committee and a report had been submitted to the Council who had authorised the conference. The matter had not been lost sight of. It would still be under the notice and discussion of the Examination Committee, who already had held a conference with the Education Committee without much coming from the meeting. The whole point was conceived to be, What position is to be held by scientific and preliminary subjects? That would be carefully considered, but it was necessary that the Council should give leave to continue the reference and let a report be prepared.

Dr. PETTIGREW seconded.

Mr. TEALE wished to remind the Council that when proposing his motion he had stated distinctly that he did not expect an immediate result. The motion was put forward rather to draw the attention of the Council and bodies concerned to the question in the hope that something might be done when the curriculum or any part of it was under consideration.

Sir DYCE DUCKWORTH'S motion was agreed to.

Penal Powers of Licensing Bodies.

Mr. BRYANT, on behalf of the Executive Committee, submitted the following report on the penal or disciplinary powers of the licensing bodies:—

The Executive Committee have pleasure in reporting that some progress has been made in regard to this question since the Interim Report was received last session. With reference to the English Universities a communication has been received from the University of Durham informing the Council that a Charter, dated Aug. 25th, 1897, has been granted from which the following Sections have been extracted:—

"Whereas doubts have arisen whether the Warden, Masters, and Scholars of the University of Durham have power to cancel, revoke, annul or take away any degree or title conferred by the University of Durham upon any person who shall have been proved to be unworthy to be a Member or Graduate of a University, and whether such power was at the date of the Charter first hereinbefore recited and now is a right or privilege incident to a University established by Royal Charter. And whereas it is expedient to remove such doubts as aforesaid, ... Now know ye that We do of our especial Grace, certain Knowledge and mere motion by these presents for Us, our Heirs and Successors will grant, ordain and declare that the said Warden, Masters and Scholars of the University of Durham shall be empowered and are hereby authorised and empowered to cancel, annul, revoke, and take away any degree or title that has been or shall hereafter have been conferred by the University of Durham upon any person of whom it shall be reported to Convocation by the Warden and Senate that such person has been convicted of a crime for which he has been sentenced to penal servitude or imprisonment and that such crime is one which renders him unfit to be a member or graduate of the University of Durham."

It has also been intimated to the Council that the Court of the Victoria University has decided to apply for similar powers to those already obtained by the University of Cambridge, and that now it only remains that the application should be formally made to the Crown with every prospect of the power being conferred. With reference to the Scottish Universities the President has informed the Council that the Edinburgh University Court has again considered the question of obtaining power to remove from the roll any graduate who may be found guilty of a criminal offence or other misconduct; and the Court has decided to intimate to the other University Courts that, while remaining of opinion that the difficulties of the question are very great, it is willing to confer with the other universities and to appoint representatives to a joint committee which might report to the various courts. An official communication has been received from the University of Glasgow stating that the Court on July 8th, 1897, adopted a memorandum in which it desired very respectfully to raise the question whether it might not be possible for the Universities Commissioners even now, without determining anything, to leave on record in their final report such an expression of their opinion as may tend to bring the Scottish Universities into line with each other or with those universities of the United Kingdom which either already possess or have expressed the desire to obtain further disciplinary powers in accordance with the expressed wish of the General Medical Council.

The Glasgow University Court is fully aware of the difficulties of the subject and has made no attempt to disguise or to over-ride these in its communications to the General Medical Council. The court is also willing, nay, desirous, that the whole subject should be fully discussed from the point of view of the other Scottish universities, so that any attempt made after the expiry of the Commission to meet the

wishes of the General Medical Council in respect of disciplinary powers may proceed as a conjoint movement on the part of all the Scottish universities. But it appears to this University Court that in no way could this desirable object be more facilitated than by an expression of opinion, after due inquiry by the Universities' Commissioners, to be included in their final report. The Glasgow University Court will be willing to place itself at the disposal of the Universities Commissioners should it appear desirable to take evidence or to bring about in any way a conference of the Scottish universities with respect to the questions involved in this memorandum. The Scottish Universities Commission in answer to the Glasgow and Aberdeen Courts, however, assert that the matter to which the above memorandum refers is not within the province of the Commission. They have no Parliamentary powers to deal with it or instructions to report upon it. In the Joint Committee referred to above all the universities of Scotland would no doubt take their part and thus united action be taken by all the Scottish universities. So far no information has been supplied to the Council as to any further steps taken by the Royal University of Ireland.

In moving that this report be entered on the minutes Mr. Bryant said there had been a first report on this subject, then an interim report, and now this further one, which he should like to distinguish as the third report. It simply gave information to the Council of what had been done by the different licensing bodies since last May. He was happy to say that it was favourable. He hoped that when the subject was again reported upon there would be something more definite to say.

In answer to Dr. MCVAIL Sir CHRISTOPHER NIXON said that the Irish University authorities considered they could do nothing in this matter unless they had some new powers.

Dr. MCVAIL suggested that they should inform the committee of their view.

Sir DYCE DUCKWORTH seconded Mr. Bryant's motion, which was agreed to.

The CHAIRMAN said no further motion on the subject was needed seeing that the report was only narrative.

The Case of Alfred Freeman.

The Council proceeded to the consideration of the case of Alfred Freeman, of 163, Bloomsbury-street, Birmingham, registered in England as Mem. R. Coll. Surg. Eng. 1862; Lic. R. Coll. Phys. Edin. 1879, who had been summoned to appear before the Council on the following charges, on the complaint of Albert Henry Bygott, of 1, Deritend, Birmingham, registered in England as Lic. Soc. Apoth. Lond. 1893:—

(1) The complaint is in respect of two dispensaries or establishments where branch medical practices are carried on in the name of Mr. Freeman at 65, Benacre-street and 163 and 165, Bloomsbury-street, Birmingham. (2) The complaint is that at such establishments or dispensaries Mr. Freeman, being a registered practitioner, authorises, permits, and enables two unqualified and unregistered persons, who purport to act as his assistants, to attend upon and administer medical treatment to patients and give and sign medical certificates in his (Freeman's) name and carry on medical practice as if they had been duly qualified and registered. (3) The unqualified persons referred to were his (Alfred Freeman's) two sons. (4) The complainant is Mr. Albert Henry Bygott, of 1, Deritend, Birmingham.

Mr. Bygott appeared to support his case and Mr. Freeman was assisted by Mr. Meade, solicitor.

Mr. BYGOTT made a statement as to the position of the two dispensaries and Mr. Freeman's residence and the manner of practice carried on in the former and presented to the Council certain declarations.

Mr. FREEMAN went into the witness-box and tendered evidence. He said he had been thirty-four years in practice; of this time twenty-nine years being spent in the town of Wolverhampton, where he had been a member of the town council. About two years ago he went to Birmingham, taking up his residence and practising at Bloomsbury-street. He afterwards changed his residence to Nechell's-green and opened the surgery in Benacre-street. One establishment was taken by his eldest son, who was thirty-two years of age, and the other by another son, eighteen years of age, but both were conducted under his close personal supervision.

The Council decided that the case had been proved and directed the Registrar to erase Mr. Freeman's name from the Medical Register.

Thereafter the adjournment took place.

TUESDAY, NOV. 30TH.

On taking the chair Sir WILLIAM TURNER said there was a good deal of business on the programme, some of it of considerable importance, and he would express the hope that members would address themselves closely to the points so that they might finish the session that day.

The Pharmacopœia.

Mr. H. E. ALLEN, the Registrar, read the following report from the Pharmacopœia Committee:—

The committee having had entrusted to it the duty of preparing the new edition of the British Pharmacopœia has now the honour to submit for the approval of the Council copies of their final draft of the work subject to the correction of typographical and other errors. The estimated amount to be expended on its production will be about £5000. If 20,000 copies are printed the cost to the Council will be about 6s. per copy. The committee accordingly suggest that the price of the volume might suitably be 7s. 6d., but the power of actually fixing the price rests with the Commissioners of the Treasury. In order that the Pharmacopœia may be issued early next year the committee recommend that it be delegated to the Executive Committee to adopt the fully corrected work as "The British Pharmacopœia, 1898," to communicate with the Commissioners of the Treasury on the question of price, to publish the Pharmacopœia, and to make the legal announcement of publication by notice in the London, Edinburgh, and Dublin Gazettes in accordance with the provisions of the Medical Act, 1862.

This report having been entered on the minutes.

Mr. BRUDENELL CARTER moved the adoption of the recommendation which it contained. In so doing he said that as it was not in his power to practically render any other assistance to the Pharmacopœia his colleagues on the committee had been kind enough to put him in the chair when their President (Sir Richard Quain), who was chairman of the committee, was absent. That had given him the opportunity of seeing with what painstaking care the new edition of the Pharmacopœia had been produced. On the production of no previous edition of the work had anything like the same labour, pains, and care been bestowed, and he felt quite confident that it would remain as a monument of the greatest possible credit to this Council. The book now was entirely complete with the exception of typographical corrections, and the committee therefore asked the Council to refer to the Executive Committee the special function of ordering it to be published. Unless they secured an arrangement of this sort with the Executive Committee the publication of the book would have to be deferred until the end of May. They felt that the necessary corrections could be made before the next meeting of the Executive Committee in February, 1898, and that it would be in a fit condition to be published. The book would cost 6s. 2d. per copy and the price at which it was to be sold to the public might be higher than the 7s. 6d. named in the report. That was a matter that rested with Her Majesty's Treasury, but personally he thought that the price of 10s. or 10s. 6d. would probably not be too much to pay for a work of the character in question.

Sir DYCE DUCKWORTH, in seconding, said it was due to the Council that they should know what an immense amount of labour and pains had been taken in connexion with this new edition of the Pharmacopœia and how much painstaking labour had been bestowed upon it by their esteemed President himself. Those who knew Sir Richard Quain knew what pride he had taken in the production of each successive book in the preparation of which he had taken part and he felt sure that if Sir Richard Quain had been able to be present he would have told them something in detail of the work which had been carried on during the last few years. The labour had been simply stupendous. The committee had been materially assisted by the painstaking work of Dr. Tirard, who had had the most of this large work in his hands during the last two years. The book would not now have been so well advanced as it was but for the work Dr. Tirard had done. This edition of the book had been revised in a way that no previous Pharmacopœia had been. In making it such a complete work as it would be they had had the assistance of Indian and colonial authorities and it was really the first Imperial Pharmacopœia. Altogether the labour bestowed upon its production was unprecedented and it was a work that ought to command the utmost confidence. The book was worthy of the Council and he hoped that every member of the profession would provide himself with a copy of it.

Dr. MACALISTER cordially agreed with all that had been said.

Mr. BROWN asked what was the price of the present edition of the Pharmacopœia.

The CHAIRMAN replied that it was 6s., but it was being sold for 4s. 6d.

Mr. BROWN thought it would be a big jump if they raised the price of the book from 6s. to 10s.

The CHAIRMAN said that under the Act of Parliament it

vested entirely with Her Majesty's Treasury to say at what price the book should be sold.

The motion was agreed to.

Dental Education and Examination.

On the motion of Dr. MACALISTER, seconded by Dr. LEECH, the Council went into committee for the consideration of the recommendations of the Dental Education and Examination Committee.

Mr. BRYANT explained that in December, 1896, the Committee presented a report; in May, 1897, they presented an additional report; and now they presented their third and final report. He had hoped to have been able to ask the Council to adopt this final report, but when he looked down the programme of business and saw the notice of motion in the names of Dr. Heron Watson and Dr. McVail he felt that to meet the resolution he should be obliged to go into details connected with all these reports and he suggested that the Council accept the final report as read and allow him to confine himself simply to the point raised by Dr. Heron Watson and Dr. McVail.

The CHAIRMAN thought the best course in the meantime would be for Mr. Bryant to read to the Council the final report.

Mr. BRYANT then read it, the terms of the report being as follows:—

This Report is based upon the "Additional Report" of this Committee which was presented to the General Medical Council in May last and was entered on its Minutes, together with the remarks upon it made by the four licensing bodies to which it was referred with the whole of the previous Reports bearing upon the recent inspection of their examinations. We have reason to believe that the Report of the Royal College of Surgeons of England will be favourable to the recommendations of this committee with respect both to the curriculum and to the examinations, but it cannot be communicated officially at present. Upon the recommendation of this committee that the Royal College of Surgeons of Edinburgh should unite with the Faculty of Physicians and Surgeons of Glasgow and so form one Conjoint Dental Board for Scotland, the Edinburgh College reports that the recommendation was carefully considered by the President and Council of the College and subsequently at the statutory meeting of the College on Oct. 20th, 1897, when it was resolved that the recommendation of this Dental Committee should neither be accepted nor even entertained by the College.

The Faculty of Physicians and Surgeons of Glasgow after referring it to their legal advisers likewise reports: "In view of the fact that there appears to exist no statutory provision for sanctioning the suggested combination and of the doubtful validity of a voluntary or non-statutory union of the two boards the Faculty consider that they are at present precluded from taking action in the direction indicated by this recommendation."

Under these circumstances this committee can only express its regret that its suggestion for providing one Dental Examination Board for each division of the United Kingdom cannot at present be carried out. With respect to the recommendation of this committee that the three months' course of materia medica should not be required, it would appear from the remarks of the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow, that such an omission is not by them considered desirable; whereas the London Royal College is in accord with the recommendation and the Irish College seems to be indifferent to it as it passes it by. With respect to the recommendation of this committee that the courses of lectures in physiology, metallurgy, and mechanical dentistry should be helped by special practical courses, the Edinburgh Royal College of Surgeons states that the additional courses suggested already substantially exist in its curriculum although not directly specified under a separate designation, and "considers that the remedy for any supposed deficiency in such teaching will be found not in further subdividing the courses in the curriculum but in securing that the courses as at present prescribed are thoroughly and efficiently utilised."

The Faculty of Physicians and Surgeons of Glasgow fully recognises the importance of practical instruction and that the changes recommended are generally in that direction. It thinks, however, that whenever practicable the practical instruction should be combined with the ordinary course, but approves of the addition of a practical course of dental metallurgy.

The London College already acts up to the recommendations and the Irish College has not raised any objections to them, consequently your committee leave these recommendations as they now stand with the assurance of the examining bodies that the practical part of the instruction will be effectively provided for.

The recommendations of this committee with respect to examinations are covered by the scheme of the London College and are not criticised by the Irish College. The Edinburgh College states that its First and Second Examinations comprehend substantially all the subjects suggested by this committee, although the order in which they are taken at the examinations may differ. The College criticises severely the suggestion of this committee that an examination in general medicine and therapeutics is not required. The Faculty of Physicians and Surgeons of Glasgow is of opinion that, assuming there should be a preliminary and two professional examinations, the grouping of the subjects under these examinations is on the whole judicious; but it considers that all the subjects of the dental curriculum can be sufficiently covered by the two professional examinations, but agrees with this committee that the practical tests in the examination should be increased in stringency. It, however, points out to the committee that there is no necessity for elementary chemistry to be included in both the preliminary—if instituted—and first professional examinations. The error was due to the omission of a note in the original report that chemistry would only be included in the first professional examination if it had not been passed in the preliminary. The faculty also complains that "on the important point of the extent and area of the examinations of dental students in such subjects as anatomy, physiology, and general surgery the recommendations of this committee give no leading and are of opinion that in such subjects the range of topics to be examined on should be less extensive than that for general medical students and be limited by some consideration for their practical application to dentistry."

The committee feels that it does not fall within the province of the Council to furnish anything like a complete syllabus of any part of the examination but would suggest that it should include, in addition to a thorough acquaintance with dental and oral anatomy, pathology, and surgery, a general knowledge of anatomy and physiology and of the principles of medicine and surgery with only such details in any of these subjects as may have a practical bearing upon the actual requirements of dentistry.

Your committee finally now present to the Council the recommendations as originally drawn up by the Dental Curriculum Committee in 1879 in regard to the education of the dental student, and corrected up to date according to the experience gained by one or other of the four dental licensing bodies. The deviations from the original scheme which have been adopted have, as it were grown out of experience, and their results have chiefly been to encourage the practical branches of the dental art and to eliminate what has been found to be unnecessary. Neither radical changes in curriculum nor rigid methods in examination have been suggested, for your committee are well assured that so long as the examining bodies do not fall behind the main recommendations of this Council, either in the way of curriculum or examination, this Council has no other wish than that the details of the course of study and exam nations may vary in the way which seems best to the governing authorities of the licensing bodies, all of which have full liberty of action. But this committee feels that all the bodies interested ought to work on the same lines. With these objects in view it is hoped that the recommendations of this committee will prove acceptable.

APPENDIX A.

AMENDED RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL.

(1) In Regard to Preliminary Education Applicable to Dental Qualifications.

(*a*) The registration of dental students shall be carried on at the Medical Council Office in London or at the branch Council office in Edinburgh or in Dublin in the same manner as the existing registration of medical students and subject to the same regulations as regards preliminary examinations.

(*b*) Students who commenced their professional education by apprenticeship to dentists entitled to be registered, or by attendance upon professional lectures, before July 22nd, 1878 (when dental education became compulsory), shall not be required to produce evidence of having passed a preliminary examination.

(2) In regard to Professional Education.

(*a*) Candidates for a diploma in Dental Surgery shall produce certificates (i) of having passed a preliminary examination in General Education; (ii) of being twenty one years of age; and (iii) of having been engaged during four years in professional studies.

(*b*) Candidates shall produce certificates of having passed through the following curriculum:—

(i) General Medical Subjects.

Anatomy, one winter session.

Dissections, twelve months with demonstrations.

Physiology, with a separate practical course, or with practical work introduced in the course. } one course

Chemistry, including Physics. } of

Surgery, including Pathology. } six months.

Medicine,

Materia Medica, one course if thought necessary.

Practical Chemistry, one course of three months.

Attendance at a recognised general hospital with clinical instruction, not less than one year.

(ii) Special Subjects.

Dental Anatomy and Physiology, human and comparative, not less than twenty-four lectures, including Dental Histology and the preparation of Microscopic Sections.

Dental Surgery and Pathology, not less than twenty lectures.

Metallurgy, not less than twelve lectures, or demonstrations made practical, or with a distinct practical course.

Mechanical Dentistry, not less than twelve lectures, with separate course of Practical Dental Mechanics.

Practice at a Dental Hospital, or

Dental Department of a general hospital, two years.

(*c*) Candidates shall produce certificates of having received three years' instruction in Mechanical Dentistry from a registered practitioner.

(*d*) The three years of instruction in mechanical dentistry, or any part of them, may be taken by the dental student either before or after his registration as a student; but no year of such instruction in mechanical dentistry shall be counted as one of the four years of professional study unless taken after registration.

(*e*) One year's *bonâ-fide* apprenticeship with a registered dental practitioner, after being registered as a dental student, may be counted as one of the four years of professional study.

Mr. BRYANT having read this report moved that the amended recommendations as specified in the Appendix A be adopted

Mr. CARTER seconded this motion.

Dr. MCVAIL suggested that the Council should before going into this matter deal with this:—

Notice of motion, to be moved in committee by Dr. Heron Watson, seconded by Dr. D. C. McVail: That this Council is of opinion that the suggestion of the Dental Education and Examination Committee that the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow should unite in conferring a single qualification in dental surgery is not provided for in the Dental Act

(Section 28 of that Act never having come into operation) and need not therefore be entertained by this Council, whose duties consist simply in administering the Act.

Mr. BRYANT said that the state of the case in this regard was that the committee made their recommendation. The bodies said they were not in a position to carry it out, but the recommendation stood and there was no reason why it should not remain on record in the report.

The CHAIRMAN asked whether, after this statement, it was necessary for Dr. Heron Watson to proceed with his notice of motion.

Dr. HERON WATSON took the view that it was necessary in order that the constitutional question might be made clear. In his opinion the committee had far exceeded its duty. Not only so, but he doubted whether this report was brought up in a form in which it could be dealt with by the Council. He did not see why the committee had not presented certain definite issues upon which the Council might express an opinion.

Mr. BRYANT then read to the Council the additional report presented in May, which is much too long a document to be reproduced in these columns. With regard to the question of materia medica which appeared to excite a good deal of interest Mr. Bryant said that in the case of his own College the general student was not required to attend a course of materia medica, and he thought they could not ask more from the dental student than they did from the general one in this respect. He did not think it was advisable to do anything which might give to dentists the idea that they were justified in administering drugs. They learned the work of their profession in the lectures and advice given to them in practical surgery. They were taught to write prescriptions, but his College did not wish them to write other than simple prescriptions of lotions and so on because there was no desire to suggest that they were justified in administering medicines for internal diseases. That was all Edinburgh seemed to require of their students—knowledge of narcotics, emetics, purgatives, depressants, and stimulants; and in the case of Glasgow they simply spoke of knowledge of therapeutics in relation to emetics and vomiting, including the modes of prescription and the medicines employed. The Royal College of Surgeons in Ireland seemed to eliminate it altogether. What the committee did was to leave materia medica an open question so that the College might include the subject or not as they wished. He could not see that there was any objection in leaving it standing. Let the Council remember that these were not requirements. They had no absolute power of compelling any one of these bodies to do this or the other thing; they could only express pleasure when they fell in with the Council's recommendations and regret when they took a different course. Moreover, he thought that so long as the bodies did not fall behind the recommendations of the Council they ought to be fairly satisfied. As to the suggestion that came from the Glasgow Faculty with respect to some sort of guiding as to the extent to which dental students should be required to go into anatomy, physiology, medicine, and surgery, and if the body wished it materia medica, he might say that at first sight he was so satisfied with it that he sat down at once to form some sort of syllabus of the subjects, but after a time he realised that it was not the function of this Council to draw up syllabuses or synopses for the examining bodies and he abandoned the idea, and the committee had contented themselves with the expression of opinion found in their report.

The CHAIRMAN said he could not help thinking that the committee should have formulated a series of specific recommendations so that a vote could be taken upon each and the opinion of the Council thus obtained. As it was he suggested that the Council was not ripe to come to a decision upon the report.

Dr. MACALISTER moved:—

That it be remitted to the Dental Education and Examination Committee to draw up their recommendations in the form of a series of propositions, each dealing with a single subject, in order that the Council may be enabled next May to come to a definite decision on this subject.

Mr. BROWN, in seconding this amendment, said that in the present state of the case the Council was not in his opinion in possession of sufficient information to come to a proper conclusion.

Sir RICHARD THORNE said that while he quite approved of what Dr. MACALISTER had proposed he would read to the Council a motion he had prepared on this subject. It was to this effect, viz.:—

That it be remitted to the Dental Education and Examination Committee to consider and report whether it is not possible and expedient so to restrict the curriculum for dental students as to make it less adapted to the practice of medicine and surgery and better adapted to the practice of dentistry.

Since he had been a member of this Council nothing had impressed him more than the encouragement given for the education of mongrel doctors. One day they were attempting to stop irregular practice and the next they were engaged in supporting the education of these men in medicine and surgery. He would say that nine-tenths of the work was not adapted to the dental profession and that it was mere waste of time for the dental student to occupy himself with it because he might be much more profitably employed.

After some further discussion the Council by a large majority adopted Dr. MacAlister's proposal both as an amendment and as a substantive motion.

The CHAIRMAN asked Mr. Bryant whether he intended to insist on the reference to the proposal to fuse the two Scotch bodies in order to constitute a single examination in Scotland.

Mr. BRYANT said he thought it well that it should remain on record.

Dr. HERON WATSON expressed the opinion that it should be removed.

Dr. MCVAIL said that what the Scotch bodies objected to was the suggestion that this idea of a combination had never occurred to them until it was put forward by this committee. As a matter of fact it had been discussed immediately after the passing of the Act and from time to time since by them and they had found that they could not possibly unite under the present Dentists Act.

Dr. MACALISTER pointed out that the report was not adopted by the Council and therefore the reference to this subject could do no harm.

The CHAIRMAN suggested to Mr. Bryant that in bringing up his new report he should make a point of putting the two bodies in their proper position and so disposing of this matter.

Mr. BRYANT acquiesced in the suggestion.

Dr. HERON WATSON said that in these circumstances he would not press the motion of which he had given notice.

The following motion also standing in the name of Dr. Heron Watson was not moved, viz:—

That this Council, while recognising the care and attention bestowed by the Dental Education and Examination Committee upon the consideration of the reports furnished by the inspector of dental examinations, desires to place on record that no occasion is shown for the suggested withdrawal of materia medica from the dental curriculum and from the list of subjects for examination, and that the substitution in its stead of the hospital attendance and general lectures and four years of practical work does not meet either the requirements or the approval of this Council; and further that the conclusion at which the Dental Education and Examination Committee arrives, "that an examination in general medicine and therapeutics is not required," the necessary teaching and learning of these subjects so far as they belong to the practice of Dentistry being included in the general scheme as laid down," is also contrary to the requirements and approval of this Council.

The Council having resumed confirmed Dr. MacAlister's proposal adopted in committee.

On the motion of Dr. HERON WATSON, seconded by Dr. MCVAIL it was agreed that an honorarium, the amount of which was left to the decision of the Executive Committee, be voted to Mr. Tomes, together with the best thanks of the Council for his inspection of the dental examinations and his reports upon them and upon the requirements of the curriculum in the case of each of the bodies granting a registrable diploma in dentistry.

Public Health.

Sir RICHARD THORNE presented a report from the Public Health Committee. In this report the committee begged leave to advert to their report to the Council of May 27th, 1897, on the Scotch Public Health Bill, which report was adopted by the Council and forwarded to the Secretary of State for Scotland, the Lord Advocate, and each member of the Committee on Law of the House of Commons then sitting on the Scotch Public Health Bill. In that report the committee drew attention to the fact that the proposal embodied in Section 22 of that Bill to place the opinion of the sanitary inspector in matters where a judgment has to be formed as to what is or is not liable to constitute a danger to public health on a statutory equality with that of the medical officer of health was calculated seriously to frustrate the efforts which the Council had made to ensure a distinctively high standard of proficiency in the public health service. The committee now further reported that following on the action taken by the Council the reference to the sanitary inspector was altogether deleted from the section as it now stands in the Public Health (Scotland) Act, 1897, and that the

hitherto existing status of medical officer of health in Scotland in the matter referred to has been maintained. The only remark he desired to make was that, knowing, as he did, how extremely strong was the determination of some who were in very high positions to prevent the restitution of these rights to medical officers of health, he thought the Council was greatly to be congratulated on the result which could not fail to have its effect both in England and Ireland as well as in Scotland.

Dr. BRUCE, in seconding the motion, said that undoubtedly the action of the Council in this matter had been of great assistance to the medical officers of health.

The report was received and entered on the minutes.

Medical Aid Associations.

Dr. GLOVER read the following interim report from the Medical Aid Association Committee, namely:—

The Committee on Medical Aid Associations have to report to the Council that they have met deputations from Norwich and Yarmouth and have conferred with them on the memorial on the subject presented to the Council. On the suggestion of Mr. E. W. Brabrook, the Registrar of Friendly Societies, the committee has had an interview with a sub-committee appointed for the purpose by the leading friendly societies at which an opportunity was given for a full expression of opinion on the matters in dispute between the members of the profession and the associations. In the result a desire was expressed that the subject should be still further discussed in a similar conference to be held in the course of a few weeks. In view of such conference and of the need for further consideration of the matter by the committee the committee does not see its way at present to give more than this *interim* report and suggests to the Council to re-appoint the committee.

Dr. Glover assured the Council that the committee had been met in a most kindly manner by the friendly societies.

The report was received and entered on the minutes and the committee re-appointed to continue its work.

The Army Medical Department.

Sir DYCE DUCKWORTH read the following report of the Examination Committee upon the letter of the Director-General of the Army Medical Department with regard to the Council's request for information as to deficiencies in writing, spelling, and composition in the written work of candidates appearing before the examiners of the Department for Commissions in the Army Medical Department.

The Examination Committee of the General Medical Council of Education and Registration beg leave to report to the Council, with reference to the letter of the Director-General of the Army Medical Department (Minutes of Executive Committee, Nov. 22nd, 1897, p. 9), that it may be well to communicate to the Director-General for the information of his office an indication of the aim of the Council in asking him for any information he might be at liberty from time to time to communicate to the Council bearing upon glaringly faulty spelling, writing, or composition in the paper work of any of the candidates for appointments in the Army Medical Department brought under his notice by the examiners by whom these examinations are conducted. The information is desired by the Council not for the identification of candidates but to enable the Council to exercise from time to time a corrective influence upon those bodies from which preliminary examination certificates in general education had been obtained and which had apparently proved remiss in the exercise of their duty in granting certificates to pupils who did not possess a requisite degree of preliminary educational training; and, further, to indicate to the Director-General that the information asked for was afforded by the Director-General of the Medical Department of the Navy and by the India Office, and that it had been furnished on former occasions by his predecessor in the Army Medical Department.

The report was received and entered on the minutes and the chairman of the committee was invited to communicate with the Director-General of the Army Medical Department in the sense indicated in the report.

A Delayed Registration.

A report from the Students' Registration Committee having been formally adopted it was agreed, on the motion of Dr. MacAlister, seconded by Dr. Leech, that on the recommendation of the English Branch Council the General Council should register the name of Mr. G. S. Dobrashian, Mem. R. Coll. Surg. Eng., 1880, Lic. Soc. Apoth. Lond., 1881.

Vacancy on the Executive Committee.

Dr. LOMBE ATTHILL was elected a member of the Executive Committee in the place of Dr. William Moore. The election was by ballot and was made from amongst the representatives of Ireland, Sir Philip Smyly, already a member of the committee, excluded.

Claim by Dr. Rentoul.

The next business proceeded with was on the agenda as follows: "The treasurers to make a communication respecting a letter received by the Registrar from Dr. R. R. Rentoul."

Sir DYCE DUCKWORTH read the letter in question. In it Dr. Rentoul wrote: "Respecting my letters of June 14th and July 13th asking the treasurers of the General Medical Council to pay the ten guineas due to me under standing orders, Clause 4, and the treasurers' refusal to pay, will you please bring this before the Council and ask the Council to see that the above rule is put into rightful operation?" At the end of last May session, Sir Dyce Duckworth went on to say, Dr. Rentoul and the other members of committee received payment according to the regulated scale. Dr. Rentoul received the proper, fair, and regulated sum for his attendance, but on the last day of the session he had applied for 10 guineas more because, as he said, the treasurers had mistaken the distance between Liverpool and London. He (Sir Dyce Duckworth) had told Dr. Rentoul that as in years previous they had had a member of Council (Mr. Mitchell Banks) who came from Liverpool and had accepted the payment on the scale on which payment had been made to Dr. Rentoul he did not feel at liberty to pay Dr. Rentoul 10 guineas more. Dr. Rentoul thought he was being badly treated. He wanted to know whether he was to be paid for the Sunday or for his wife who had accompanied him to London. He told the treasurers that if he did not receive the proper sum he would take further steps. Ten days later he (Sir Dyce Duckworth) had received some documents from Liverpool showing that Dr. Rentoul had got the chief constable of Liverpool to measure the distance from his residence to the railway station and had written to the Commissioner of Police of the metropolis to ascertain the distance between Euston Station and the hotel at which he stayed during the sitting of the Council. This, according to the documents in question, had resulted in showing that the distance altogether was over 200 miles and that distance Dr. Rentoul maintained put him into another category than the one the treasurers put him into and entitled him to extra payment. He (Sir Dyce Duckworth) still refused to pay the extra ten guineas and had told Dr. Rentoul that if he thought he had a claim he should refer it to the whole Council, advising him, however, that he (Sir Dyce Duckworth) would not support it. He had heard nothing more until this letter to the Registrar. In consultation with Mr. Bryant it had been determined that they as treasurers were not entitled to pay more than they had already paid. The distance by railway from London to Liverpool was under 200 miles, and the Council were not in the habit of including in calculation of distance the space between the railway stations and the residences or hotels of members. With Mr. Bryant's sanction and approval he laid the matter before the Council.

The CHAIRMAN: Is there any motion to be made on this?

Sir DYCE DUCKWORTH: I have no motion.

Mr. BRUDENELL CARTER said that according to the A.B.C. Time Table the distance between London and Liverpool was 201 miles. He should like to ask their legal adviser if Dr. Rentoul had any legal claim.

Mr. BRYANT said that he and Sir Dyce Duckworth had gone into this matter and they had come to the conclusion that according to the railway Parliamentary fare which was 16*s.* 6*d.* the distance was equal to 198 miles.

Mr. TEALE said this was clearly a case in which unless they were legally bound they were not morally bound to pay. It was not a case in which they could pay for two extra days—one for coming the day before the meeting of the Council and the other for leaving the day after.

The CHAIRMAN: Is there any motion?

Mr. BROWN wished to point out that the question involved here was not so much one of distance between one station and another as it was a question of residence. Dr. Rentoul did not reside in Liverpool but in a suburb of that city and he was clearly entitled to charge as from his residence. When he did that it would be found that he did reside more than 200 miles distant from the Council offices and that being so would it not be better to pay this ten guineas without more to-do? Before making any motion he should like to take Mr. Muir Mackenzie's opinion on the point.

The CHAIRMAN: I do not think it is a matter for Mr. Muir Mackenzie. It is a question for the Council.

Dr. BATTY TUKE: It would be much better to pay the ten guineas and be done with it.

Dr. BRUCE moved that the sum be paid and Dr. BATTY TUKE seconded the motion.

The Council divided, but as 10 voted against and only 4 for the motion was rejected.

Dentists' Registration.

The Council sat in private for considerably over an hour. On the readmission of the public the CHAIRMAN announced

that the Council had passed a resolution directing the Registrar not to act on instructions he had already received in the matter of certain registrations in the Dentists Register until further orders from the General Medical Council.

The Dublin Apothecaries' Hall.

Sir DYCE DUCKWORTH moved:—

That all the examinations of the Apothecaries' Hall of Ireland be regularly reported on by an inspector appointed by the Council.

He would drop, he said, the concluding words of the notice he had given—viz., "as well as by the assistant examiners in surgery." He was sorry the motion came on so late in the session as he considered it one of the most important pieces of business the Council had to do. The Council were really responsible for the work that this re-established licensing body might do and it was the Council's duty not only to the public but also to the profession to inspect the work so that they might be fully aware of all that was done.

Mr. BRYANT seconded the motion.

Mr. TICHBORNE, the representative of the Dublin Apothecaries' Hall, said that what the body he represented objected to was turning the assistant examiners into inspectors.

The CHAIRMAN pointed out that the intended references to the examiners had been withdrawn. He asked if Mr. Tichborne objected to the motion in its altered form.

Mr. TICHBORNE: Not in the slightest.

The motion was then adopted.

After some discussion as to whether the assistant examiners in surgery appointed by the Council at the instance of the Privy Council could take notice of examinations in medicine and midwifery as conducted by the Hall,

Mr. MUIR MACKENZIE gave it as his opinion that as, according to the Act of Parliament, it was the duty of the assistant examiners in question to secure such a standard of efficiency as was enjoined by statute, and as for that purpose they should have such powers and perform such duties as the General Medical Council might from time to time prescribe the Council were within their powers to prescribe that assistant examiners who were appointed for the purpose of examining candidates in surgery should have the further power of reporting on the examinations generally.

Mr. TICHBORNE: Would they not in so doing be acting as inspectors?

Mr. MUIR MACKENZIE: No.

On the motion of Dr. MACALISTER, seconded by Sir DYCE DUCKWORTH, it was remitted to the Executive Committee to appoint an inspector for the work suggested in Sir Dyce Duckworth's motion.

The Penal Cases Committee.

Dr. GLOVER moved that the number of members for England on the penal cases committee be increased from three to five.

Mr. BRYANT seconded.

Dr. BRUCE thought it was now too late in the session to interfere with the standing orders and he moved the previous question.

This proposal was at once put to the Council and was carried by 13 votes to 3.

A Further Sitting in Private.

The Council then sat in private to discuss the following notice of motion by Dr. Batty Tuke:—

That it be an instruction to the Penal Cases Committee that no case be laid before the Council except upon evidence which will be presented orally when the case is heard or upon evidence given in the form of statutory declaration.

No intimation of the result of the discussion was given to the public on their re-admission to the Council Hall.

Death Certification.

On the motion of Dr. MACALISTER it was agreed that the following should be entered on the minutes:—

The President informs the Council that owing to the illness and absence of the Right Honourable Henry Chaplin and the absence of Sir Richard T. Thorne on the Continent on official business the deputation on death certification has not yet waited on the President of the Local Government Board, but that a statement to be handed in to the Board has been prepared.

An Invalid Petition.

Dr. MACALISTER moved the adoption of the following report, viz.:—

The Business Committee beg leave to report to the Council as follows: A petition signed by Dr. J. H. Hill and others, entitled "A Petition on the subject of the choice of persons to be Members of the Council by the several Bodies represented thereon," has been examined by the committee. They find that the question to which it refers is one which deals entirely with the legal powers of the medical authorities and therefore does not come within the purview of the Council. The committee accordingly recommend that the petition be not received.

Mr. BRYANT seconded the motion.

Mr. BROWN moved as an amendment:—

That the petition of Dr. J. H. Hill and others be read and entered in the minutes.

He took exception to the statement that the petition was one of a legal character which could not come within the purview of this Council and maintained that the document was in perfect order.

Mr. HORSLEY seconded the amendment.

On a show of hands only two members were found to be supporting the amendment, which was accordingly rejected. The roll was then called and the motion was carried by 9 votes to 2.

Mr. BROWN withdrew his intended motion:

That a deputation not exceeding five persons be received in support of the petition signed by Dr. J. H. Hill and others.

This concluded the business.

Vote of Thanks.

Dr. MACALISTER moved that the Council records its cordial thanks to Sir William Turner for the manner in which he had discharged the arduous duties of chairman during the session.

Sir PHILIP SMYLY seconded and the proposal was carried with applause.

Sir WILLIAM TURNER, in acknowledgement, said that he begged to thank the Council for the hearty vote of thanks they had just passed. He had endeavoured to act, he hoped, fairly to all persons around the Council table. That had been his wish and he thought he might say after the hearty expression of opinion just given that he had not failed.

The Council rose till May next.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination for the diploma of Fellow at a meeting of the Board of Examiners:—

Monday, Nov. 15th:

Arthur Stanley Barnes, B.Sc. Lond., Mason College, Birmingham; Herbert Johann Scharlieb, M.R.C.S. Eng., L.R.C.P. Lond., M.B. and B.S. Lond., University College, London; Robert Craig Dun, M.R.C.S. Eng., L.R.C.P. Lond., M.B., C.M., and B.Sc. Edin., Edinburgh, Berlin, and Bern Universities; Harold Collison, Yorkshire College, Leeds; Hugh Let, Yorkshire College, Leeds, and London Hospital; and David Sydney Graves, Guy's Hospital.

Nine gentlemen were referred back to their professional studies for six months.

Tuesday, Nov. 16th:

Sydney Smith, University College, London, and St. Mungo's College, Glasgow; William Henry Passmore and Burton Alexander Nicol, Charing-cross Hospital; George Aylwin Clarkson, M.R.C.S. Eng., L.R.C.P. Lond., and Charles John Napeau Longridge, St. George's Hospital; and Lewis Augustus Walker, St. Bartholomew's Hospital.

Ten gentlemen were referred back to their professional studies for six months.

Wednesday, Nov. 17th:

Ronald Francis Campbell Ward, B.A. Cantab., Middlesex Hospital; Cyril Alfred Rankin Nitch, St. Thomas's Hospital; John Percy Lockhart Mummery, Cambridge University and St. George's Hospital; Arthur Murray Cudmore, M.R.C.S. Eng., L.R.C.P. Lond., M.B., Ch.B Adel., Adelaide University and London Hospital; and John Ernest Sullivan Frazer, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital.

Eleven gentlemen were referred back to their professional studies for six months.

Thursday, Nov. 18th:

Claude Alley Worth, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital; Graham Winfield Roll, M.R.C.S. Eng., L.R.C.P. Lond., M.B., B.C. Cantab., Cambridge University and St. Thomas's Hospital; Hormasji Manasji Masud, L.M. & S. Bombay, Grant Medical College, Bombay, St. Bartholomew's and King's College, London; Harold Rothery Nutt, St. Mary's Hospital; and Herbert Dean Pollard, London Hospital.

Eleven gentlemen were referred back to their professional studies for six months.

Friday, Nov. 19th:

Herbert Tilley, M.R.C.S. Eng., L.R.C.P. Lond., M.D., B.S. Lond., University College, London; William Stuart Low, M.R.C.S. Eng.,

L.R.C.P. Edin., St. Thomas's Hospital, Edinburgh, and King's College, London; Thomas Patrick Joseph Hartigan, L.R.C.P. & S. Edin., and John Robinson Benson, M.R.C.S. Eng., L.R.C.P. Lond., King's College, London; and James Sherren, London Hospital.

Five gentlemen were referred back to their professional studies for six months. Of the total number, 73, who presented themselves for this examination twenty-seven passed and forty-six were referred.

The following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations have been admitted Members of the College and are now entitled to practise Medicine, Surgery, and Midwifery:—

Anderson, William Maurice.
Anning, George Paul.
Aubrey, Sydney Ernest.
Baylis, Henry Edward Montgomery
Beath, David Leslie.
Beavis, John Douglas Wilson.
Beit, Francis Victor Owen.
Bell, Robert Hamilton.
Bell, Thomas Herbert.
Bennett, Norman Godfrey.
Bidwell, Charles Hugh.
Black, Charles.
Bottomley, Thomas Abbey.
Boulton, Harold
Bousfield, Stanley.
Brickwell, Frank.
Chatterton, Edgar.
Chenery, Arthur.
Cholmeley, Montague Adye.
Clark, Reginald William.
Clarke, Frederick Addlerley Howard.
Cole, John William Edward.
Corfield, Edward Carruthers.
Cowburn, Arthur Douglas.
Crossley, Henry Joseph.
Cruddas, Hamilton Maxwell.
Evans, David Edward.
Evans, Frederick Hudson.
Evans, John Howell.
Evans, William.
Falwasser, Arthur Thomas.
Fanning, William Joseph.
Fitz-Hugh, Richard Truman.
Forge, George Baynton.
Foulerton, Harry Percival.
Fremantle, Francis Edward.
Gough, Bernard Bradley.
Greaves, Francis Ley Augustus.
Gregory, Henry Lonsdale.
Grove, Ernest George.
Gutch, John.
Guthrie, Thomas Clement.
Hancock, Arthur Ernest.
Hawkesworth, Thomas Ayscough.
Henshaw, Harry Williams.
Hewitt, Harry Edward.
Hine, Hugh Fitz Neville.
Hornabrook, Rupert Walter.
Hutcheson, George.
Jackson, Harold Hart.
James, Philip William.
Johnson, Alfred.
Johnston, William.
Jones, Edward Shirley.
Jones, Thomas Caldwell Litler.
Joynes, Francis William.
Judd, Walter Rossell.
Leake, Jonas William.
Leclézio, Gustave Ernest.
Littlejohn, Thomas Piested.
Lloyd, Evan.
Lucas, George Humphrey.
McAnally, Edward Arthur.
Mackay, Duncan Matheson.
Macnair, Norman.
Macnamara, Eric Danvers.
Markby, Herbert.
Martin, Francis Raynes.
Maugham, William Somerset.
Maunsell, Debonnaire Frederick.
May, Sydney William.
Mayo, Edmond Godfrey.
Modi, Shapurji Hormasji.
Mossop, Charles Henry.
Nabarro, David Nunes.
Novis, Thomas Shepherd.
Oldfield, Josiah.
Page, Frederick William Tudor.
Palgrave, Edward Francis.
Palser, John Edwin Fo.d.
Pearson, Thomas.
Poole, Cyril Cecil.
Prance, Charles Herbert Gouldsmith.
Prescott, Thomas.
Raper, Henry Edward.
Relph, Herbert John.
Richmond, Richard Thomas.
Rogers, Reginald James.
Roman, Alphonse Henry.
Rowe, William Trethowan.
Scott, John Geddes.
Shea, Henry Francis.
Small, Arthur Atwell.
Smith, Montague.
Smith, Walter Hugh Montgomery.
Starling, Hubert John.
Stevens, Alfred Edward.
Stevenson, Walter Brodie.
Street, Albert Ernest.
Sykes, John Lewis.
Taw, Moung Pha.
Thorneley, Michael Harris.
Trewby, Henry William.
Tyndale, Wentworth Francis.
Tyrrell, Francis Astley Cooper.
Verdon-Roe, Spencer.
Wall, Reginald Cecil Bligh.
Walton, Henry Beckles Call.
Waterhouse, Rupert.
Watt, James George.
Weaver, Frederick Kearsley.
Wells, Lionel Thomas.
White, Frank Harris.
White, Harold Edward.
Wilkinson, Frank Herbert.
Williams, John Daniel Evans.

UNIVERSITY OF LONDON.—At the M.B. Examination in October the following candidates were successful:

First Division.—Cyril Wolrige Alford, Middlesex Hospital; Montague Dixon, B.Sc., University College; Brennan Dyball, St. Thomas's Hospital; John Llewellyn Jones, University College; William Percy Nicol, Mason College; Alfred Walter Sikes, B.Sc., St. Thomas's Hospital; Francis Hugo Thiele, B.Sc., University College; Edwin Josiah Toye, B.Sc., St. Bartholomew's Hospital; and Alexander Gordon Wilson, London Hospital.

Second Division.—Edward William Adams, University College, Sheffield; Louisa Garrett Anderson, London School of Medicine for Women; Walter Rothney Battye, B.Sc., and Charles Henry Benham, University College; Harry Charles Plant Bennett, St. Bartholomew's Hospital; Sidney Herbert Berry, Charing-cross Hospital; John Broadley, Yorkshire College; Harold Wilson Bruce, Guy's Hospital; Alfred Burn, St. Mary's Hospital; Joseph Ernest G. Calverley, St. Bartholomew's Hospital; Colin Campbell Clarkson, University College; Arthur Stanbury Cobbledick, Bristol Medical School; Ernest Coleman, Guy's Hospital; Mary Frances Cornford, Royal Free Hospital; Sydney Cornish, St. Bartholomew's Hospital; Thomas Varley Cunliffe, Owens College and Manchester Royal Infirmary; Wilfrid Arthur Dewhirst, Yorkshire College; Mary Buchan Doule, London School of Medicine for Women and Royal Free Hospital; William Edward Nickolls Dunn, St. Bartholomew's Hospital; Campbell Dykes, University College; Charles Herbert Fagge, Guy's Hospital; Ernest George Leopold Goffe, University College; Charles Poulett Harris, London Hospital; Alice Mary Hawker, London School of Medicine for Women; Curtis Hawsthorne Hodgson, Guy's Hospital; Alfred Lucette Home, St. Thomas's Hospital; George Hutcheson, London Hospital; Arthur Edward Jerman, Westminster Hospital; Beatrice Knowles, London School of Medicine for Women and Royal Free Hospital; Harold Leader and George Kenny Levick, Guy's Hospital; Richard Drummond Maxwell, London Hospital; Robert William Mayston, Guy's Hospital; Charles Herbert Melland, Owens College and Manchester Royal Infirmary; William Tayler Milton, Guy's Hospital; Hugh Percy Noble, Middlesex Hospital; John Hare Phipps, Owens College, Manchester Royal Infirmary, and Guy's Hospital; R. Wynne Cleas, Pierce, B.Sc., St. Thomas's Hospital; G. E. Richmond, B.A., B.Sc., and John Thomas Roberts, Guy's Hospital; Frederick William Robertson, St. Bartholomew's Hospital; Thomas O'Neill Roe, University College; James Percival Scatchard, St. Thomas's Hospital; Joseph Shardlow, University College; Mary Nona Sharman, Royal Free Hospital; Edward Birchall Sherlock, B.Sc., Westminster Hospital; James Eckersley Smith, University College, Liverpool; Lewis Albert Smith, London Hospital; Hubert John Starling, Guy's Hospital; Ernest Stanley Stork, University College; Paul Cuningham Edward Tribe, King's College; William Percival Walker and Richard James Warrington, Owens College and Manchester Royal Infirmary; Bertha Margaret Webb, London School of Medicine for Women and Royal Free Hospital; Percy Glyn S. Williams, University College; and Thomas Harold Woodfield, St. Bartholomew's Hospital.

SIR SQUIRE BANCROFT will give a reading in Plymouth on Jan. 26th in aid of the funds of the South Devon and East Cornwall Hospital.

CHELTENHAM WATER-SUPPLY.—The Cheltenham Town Council at their meeting held on Nov. 22nd decided to apply to the Local Government Board for power to borrow £30,000 for the extension of their waterworks. It is intended ultimately to improve the Tewkesbury station so that it will yield 1,000,000 gallons of water per day.

BRISTOL BOARD OF GUARDIANS AND VACCINATION.—At the meeting of the Bristol Board of Guardians held on Nov. 26th a member, in accordance with notice, moved "That the resolution passed on March 27th authorising vaccination officers to take proceedings against defaulters be rescinded." Unfortunately the resolution was carried by 20 votes to 13.

BORACIC ACID IN BUTTER.—At the meeting of the Cardiff Watch Committee held on Nov. 23rd a deputation representing the Cardiff Grocers Association attended and requested that the Watch Committee should take no steps in prosecuting grocers who sold butter containing boracic acid until it had been ascertained whether it was injurious to health or not. It was decided to await the presentation of a report on the subject by the medical officer of health.

BRISTOL CONVALESCENT HOME.—The Mayor of Bristol announced last week that the subscription list for the convalescent home now exceeds £31,000. He also stated that the committee have resolved that there shall be 80 beds, 65 of which will be apportioned as follows: 30 each to the Royal Infirmary and General Hospital, 1 to the Eye Hospital, 3 to the Bristol Dispensary, and 1 to the Clifton Dispensary.

ROYAL VICTORIA HOME, BRISTOL.—The objects of the institution are to provide a home for the treatment of female inebriates and for presumably reclaimable female offenders as well as to train such of these as are unmarried for domestic service and in various home industries. The committee have been obliged to refuse cases owing to want of funds and therefore appeal to the inhabitants of Bristol for subscriptions.

ROYAL ALBERT HOSPITAL, DEVONPORT.—The annual meeting of this hospital was held on Nov. 22nd, under the presidency of Lieutenant-General Sir W. Forestier-Walker, K.C.B. The annual report showed that 588 in-patients had been admitted during the year and that 2326 casualties had been treated in the out-patient department. The out-patients numbered 523, the great decrease in the number as compared with the preceding year being due to a system of inquiry which had been instituted to ascertain the income of all applicants for gratuitous relief. This had resulted in obtaining from those patients who were willing to pay 2*s.* 6*d.* per month the sum of £13 7*s.* 6*d.* There were 24 patients admitted to the wards for paying patients and their payments amounted to £144. There were 137 women received into the lock wards. The members of the Provident Dispensary numbered 2907 at the close of the year and the working of the Nursing Institute had been most successful. The total cost for maintenance was £4037 or an average cost per bed of £54 4*s.* 10*d.* The treasurer's report showed an adverse balance of £305, against £175 last year. Legacies amounting to £8000 had been left to the institution.

THE LATE CYCLONE AT CHITTAGONG.—No country in the world has probably been so terribly tried as India of late. In addition to war, pestilence, famine, and earthquake there has been a serious cyclone at Chittagong which has done immense damage to crops and property and been seriously destructive of life. It is estimated that close upon a million persons have been rendered homeless by it.

MANCHESTER THERAPEUTICAL SOCIETY.—The second meeting of the present session was held on Nov. 24th. Professor Dixon Mann occupied the chair. Dr. E. S. Reynolds opened a discussion upon Thyroid Medication with especial reference to (*a*) indications for thyroid treatment, (*b*) the relative value of the various preparations of thyroid gland, and (*c*) dosage of the crude gland and its preparations. The discussion was continued by Dr. Harris, Dr. Brooke, Professor Dixon Mann, Dr. Wild, and Dr. Coutts.—Dr. E. S. Yonge gave a preliminary communication on Orthoform and its anæsthetic action on the upper air-passages.—Dr. Wild showed a specimen of the Hydrobromide of Emetine and also solutions of the salt of convenient strength as substitutes for the preparations of ipecacuanha.

NEW COTTAGE HOSPITAL AT FRESHFORD, SOMERSET.—For four years Freshford and some of the neighbouring parishes, now comprising a population of about 3000, have had the services of a Queen's Jubilee district nurse. This year in commemoration of the Diamond Jubilee the District Nursing Association has founded, and this month opened, a home for the nurse and at the home has provided four beds and a cot for such cases as cannot be properly treated at their own houses. There is also at the home a bed in a separate room for a private paying case. All medical men practising in the district are *ex officio* members of the association, and the medical director of the home is *ex officio* a member of the executive committee which consists of one or two members from every parish in the nursing district.

THE NATIONAL DENTAL HOSPITAL.—The annual dinner of the past and present students of the above hospital was held at the Holborn Restaurant on Nov. 26th. There was a full attendance, and amongst the guests were Dr. Samuel West, Professor H. R. Spencer, Professor J. Rose Bradford, Dr. Blacker, Mr. Raymond Johnson, Mr. Morton Smale, Mr. J. Smith Turner, Mr. W. B. Paterson, &c. The chair was taken by Mr. E. W. Roughton, F.R.C.S Eng., the honorary visiting surgeon to the hospital, who, in proposing the toast of the school, mentioned that out of fourteen candidates sent up this year thirteen had been successful in obtaining the Diploma in Dental Surgery at the Royal College of Surgeons of England. During the evening songs were contributed by Mr. Alfred Smith, Mr. W. H. Wheatley, and Mr. Wallis Arthur, whilst ventriloquial sketches by Mr. Fred Russell and sleight-of-hand exhibitions by Dr. Herschell added to the pleasure of the evening.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The second meeting of the session was held on Nov. 10th in the Medical Library of University College, Bristol, Dr. J. E. Shaw being in the chair. Dr. Michell Clarke brought forward a case of Filariasis, the patient and specimens being shown. Dr. E. C. Williams showed the following patients who had been treated by the localised application of Super-heated Dry Air: (*a*) Monarticular Rheumatoid Arthritis; and (*b*) Polyarticular Rheumatoid Arthritis. Dr. James Swain made some remarks. Mr. C. A. Morton showed the following specimens: (*a*) a Large Gall-stone successfully removed from the Common Duct of a woman aged seventy-two years; and (*b*) a Renal Calculus detected by means of the X Rays. Dr. James Swain, Mr. Paul Bush, Dr. Skerritt, Mr. Brazier, Dr. Michell Clarke, and Dr. Fisher made remarks on the specimens. Mr. Munro Smith showed a specimen of Tumour in the Mesentery of a Fowl. Dr. F. H. Edgeworth read an interesting paper on Cases of Illness due to Opening of a Sewer. Mr. Munro Smith, Mr. Paul Bush, Mr. H. Wathen, Dr. D. S. Davies, Dr. Rogers, Dr. Harrison, and Mr. J. C. Heaven commented on the paper. Mr. Munro Smith read a paper on a Case of Cancrum Auris. Dr. Fisher, Mr. E. Harris, and Dr. D. S. Davies spoke on the subject. Dr. J. O. Symes gave a demonstration of Widal's Serum Diagnosis of Enteric Fever. Dr. Davies, Dr. Rogers, and Mr. H. Wathen made remarks.

VACCINATION AWARD.—The Local Government Board has awarded to the representatives of the late Mr. Peter Swales, of Sheerness, the proportion of the grant for successful vaccination to which he was entitled at the time of his death. This is the twelfth award made to Mr. Swales, who thereby attained the maximum possible for his service of twenty-five years and four months as he had not been twelve months appointed when the first inspection was made. Mr. Swales, who qualified as M.R.C.S. Eng. in 1861 and died in February, 1896, held several appointments in his locality including that of medical officer of health of Queenborough.

SUPERANNUATION OF A MEDICAL OFFICER.—At the meeting of the Downham Market board of guardians held on Nov. 19th it was decided to grant a superannuation allowance of £60 12*s.* per annum to Dr. Alexander J. Mackintosh, medical officer and public vaccinator to the third district of Downham union. Dr. Mackintosh has passed thirty-seven years in the service of this union and has had the unusual good fortune to receive the Government grant for successful vaccination from its commencement with the exception of one year when he allowed an assistant to vaccinate only three cases. He graduated as M.D. at Glasgow University in 1858 and is the author of numerous articles quoted in Taylor's "Principles of Medical Jurisprudence."

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY. The November meeting was held on Nov. 27th, at the Poplar and Stepney Sick Asylum Mr. Charles Spurrell, the medical superintendent, being in the chair. The society unanimously agreed to Mr. Walter Burney's motion to subscribe one guinea annually to the Royal Medical Benevolent College. The wards of the hospital were visited and Mr. Spurrell showed the following cases: (1) Locomotor Ataxia with Charcot's Disease of the Knee-joint; (2) Laryngeal Gumma for which tracheotomy had been performed; (3) Floating Kidney; (4) Osteitis Deformans; (5) Peripheral Neuritis of the Lower Limbs with Paralysis of the Left Third Nerve in a phthisical woman; (6) Tuberculous Arthritis of the Elbow and Wrist in a boy; and (7) case of Ascites with great Dilatation of the Superficial Abdominal and Thoracic Veins in a young man whose history revealed no proof of alcoholism.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—A meeting of this society was held at 20, Hanover-square on Nov. 24th, Dr. J. F. Payne President, being in the chair. Dr. Payne showed a case of Sarcoma of the Skin in a man about sixty years of age. He was the subject of a general dry eczema. Over the right pectoral region there was a well-marked, raised, ulcerating tumour rather larger than a five-shilling piece which had existed for three years and between the shoulders was a second tumour about the size of a walnut; this was much more raised than the anterior tumour and the surface was but little ulcerated. Histologically the malignant elements showed as spindle-celled sarcomatous tissue.—Mr. Hope Grant showed for Dr. Abraham a case of Xanthoma Diabeticorum in a robust middle-aged man whose urine when examined had never contained more than a trace of sugar. At the October meeting in a similar case shown by Dr. Abraham there was found a large quantity of sugar. There were a number of well-marked yellow-tipped nodules about the flexor surfaces of the forearms; the nodules were discrete but grouped. They were also plentifully arranged on both surfaces of the knees and lower thighs. There were a few scattered nodules over the back and abdomen. Dr. Payne remarked that at the Dermatological Congress it was stated that the histology of these cases was not that of xanthoma.—Dr. Walsh showed a case of Infective Angeioma. The case had been published and named by Mr. Hutchinson some two years ago. The patient was a fairly healthy looking girl, aged twenty-one years, and the condition had commenced when she was about thirteen years of age. It began on one arm near the wrist and gradually spread in arborescent lines until it had affected a large portion of the whole surface of the body. Where it had travelled faint cicatrices had been left. The term "infective" was used only in a limited sense to imply that it spread locally.—Dr. Savill showed two patients, one suffering from Lupus of the Conjunctiva with many recurrent multiple nodules upon the face and the other being a case of localised Scleroderma with large morphœa patches on the chest and abdomen.

THE LIEUTENANT-GOVERNOR OF BRITISH COLUMBIA.—The very responsible office of Lieutenant-Governor of British Columbia has been entrusted to Dr. T. R. McInnes who holds the qualification of M.D. Harvard and is a Member of the College of Physicians and Surgeons of Ontario. Dr. McInnes was born in Nova Scotia of Scotch parents. In 1878 he entered the Dominion House of Commons and obtained a seat in the Senate three years later. In the same year he was appointed Medical Superintendent of the British Columbia Lunatic Asylum.

LITERARY INTELLIGENCE.—Messrs. Baillière, Tindall, and Cox inform us that a second edition of Sir William Broadbent's work on Heart Disease is being printed, the first edition having been sold out.—The addresses of thanks to the Czar and to the President and Committee of the Twelfth International Congress, signed by 100 British members, have been forwarded this week. They were both tastefully illuminated by Messrs. Marcus Ward and Co., the one being in the form of a very handsome book bearing the Russian arms on the cover and the other a scroll enclosed in a scarlet morocco leather case.

UNIVERSITY OF CAMBRIDGE.—The Examiners in State Medicine for the year 1898 are Dr. B. Anningson, Dr. W. Collingridge, Professor A. A. Kanthack, Dr. J. L. Notter, and Dr T. Stevenson.—The appointment to the Professorship of Surgery, vacant by the death of the late Sir G. M. Humphry, is to be further suspended until April 18th, 1898, the General Board of Studies being not yet in a position to make definite proposals as to the stipend, duties, &c., of the chair.—Mr. J. W. W. Stephens, B.A., M.B., B.C. (Caius and Gonville), has been elected John Lucas Walker Student in Pathology, vice Mr. L. Cobbett, M.A., M.B. (Trinity), and Mr. H. K. Wright, M.D., C.M., McGill University, Montreal, has been awarded an exhibition of the value of £50 from the John Lucas Walker Fund. The following degrees in Medicine and Surgery were conferred on Nov. 25th:—Doctor of Medicine: L. B. Hayne, B.A., and H. M. Stewart, M.A. Bachelor of Medicine and Bachelor of Surgery: G. T. Watson, B.A., and T. L. Jackson, B.A.

DIPHTHERIA IN LONDON.—The amount of fatal diphtheria registered in London during the week ending Nov. 20th showed further decrease on former weeks. The deaths registered from the disease during the week numbered 37, as against 65, 59, and 46 in the three weeks preceding, and as against the corrected decennial average of 43 for the corresponding week of the period 1887-96. All the 37 deaths were of persons aged from one to twenty years, and 4 belonged to Lewisham, and 3 each to St. Marylebone, St. Pancras, Bethnal Green, Wandsworth, and Camberwell sanitary areas. On Nov. 20th there were 1064 patients in hospital on account of diphtheria, the admissions during the week having been 150. In the outer ring the registered deaths numbered 11, of which 5 occurred in West Ham, and 3 in Edmonton registration districts. Last week witnessed a large rise in the number of fatal attacks from diphtheria in the county of London, the registered deaths having been as many as 63 and 13 in excess of the corrected decennial average for the corresponding week of the period 1887-96. The fatal cases were widely scattered over the metropolis though as usual certain defined areas suffered more than others. Thus 6 deaths belonged to Lambeth, 5 to Battersea, 4 each to St. Pancras, Islington, Hackney, and Wandsworth, and 3 each to Paddington, Kensington, Bethnal-green, Newington, and Bermondsey sanitary areas. Of the 63 deaths 3 were of infants and 2 of persons aged over twenty years, whilst 44 were of young children aged from one to five years. On Saturday 1052 persons were under isolation in London hospitals on account of diphtheria, the fresh admissions during the week having numbered 158. In the outer ring there were 14 deaths registered from the disease, of which 5 were in the endemically affected West Ham registration district. The vast Edmonton Union was entirely free from registered fatal diphtheria. Thus in a population estimated at 6,291,677 persons there were last week 77 deaths registered from this disease out of 97 in the 33 towns of the Registrar-General (including London) with their 11,000,000 inhabitants.

ROYAL UNITED HOSPITAL, BATH.—The Amateur Theatrical Week at the Theatre Royal, Bath, has been very successful and the final performance was received with great enthusiasm by a crowded audience. At the conclusion of the *Mikado* the Rev. E. Handley, President of the Royal United Hospital, which receives the proceeds, came before the footlights and addressing the Mayor expressed his gratification at the fact that aid was given to the hospital in this way rather than by the former plan of street collections in one Saturday in the year. Dr. Lionel Weatherly, the organiser of the performances, afterwards made a speech which was very well received.

PRESENTATIONS TO MEDICAL MEN.—On Nov. 12th at a farewell entertainment at the Thistle Hotel, Milnathort, Mr. E. N. Burnett, M.B. Glasg., who has relinquished his practice in that town, was presented with a gold albert chain subscribed for by the inhabitants generally.—On Nov. 17th Mr. T. T. Somerville, L.R.C.S. Irel., of Sheffield, was the recipient from the members and supporters of the Sheaf Works Ambulance Class of a silver-mounted walking-stick and umbrella suitably inscribed in recognition of his services in preparing the class for examination on First Aid.—On Nov. 19th Mr. H. F. Cook, L.R.C.P. Lond., M.R.C.S. Eng., was presented at a meeting at the National Schools, Treeton, with an illustrated address and a purse of sovereigns from the inhabitants of Treeton, Catcliffe, Winston, Aughton and Ulley on the occasion of his leaving Treeton for Australia. Mr. Cook had been an assistant medical officer of the district for upwards of two years and his unvaried kindness and courtesy were appreciated by all.—At the Public Hall, Clevedon, Somersetshire, on Nov. 20th, after the completion of a course of lectures which have been recently held in connexion with the St. John Ambulance Classes the lecturer, Mr. H. Rogers-Tillstone, M.D. Aberd., was presented with a handsomely fitted "emergency bag" and a mother-of-pearl match-box together with an address containing a list of subscribers in appreciation of the lectures given by him.—Mr. C. M. Maxwell, of Lasswade, who has unfortunately been compelled to relinquish practice there on account of ill-health, has been presented by his patients with £200 and a silver salver to carry an inscription; the miners of Whitehill Colliery, to which he is medical officer, have also arranged to give him two silver dessert dishes. Dr. Maxwell has made many friends in Lasswade, a picturesque locality not far from Edinburgh, where he has been in practice for nearly seventeen years. He now intends to proceed to Australia in the hope that the change of climate may be beneficial.

BOOKS, ETC., RECEIVED.

ARROWSMITH, J. W., Quay-street, Bristol.
Abdominal Surgery. By J. G. Smith, M.A., F.R.S.E. Sixth Edition. Edited by James Swain, M.S., M.D. Lond. Vols. I. and II. 1897.

BAUERMEISTER, F., Glasgow.
Wolf's Medicinisches Vademecum. 1890-1897 enthaltend, Dr. K. Kuster. No. 1, Band 5.
Therapeutisches Taschenbuch für Augenarzte. Von Dr. H. Landolt und Dr. P. Gygax. 1897.
Verhandlungen des Congresses für Innere Medicin, 1897. Von Dr. E. von Leyden und Dr. E. Pfeiffer.
Handbuch der Medicinischen Gymnastik. Von Dr. A. Wide. 1897.
Historisch-Medicinische Bibliographie für die Jahre 1875-1896. Von Dr. J. Pagel. 1898. Price 12s.
Einführung in die Geschichte der Medicin. Von Dr. J. Pagel. 1898. Price 10s.
Die Bedeutung der Augenstörungen. Von Dr. Otto Schwarz. 1898. Price 2s. 9d.

BERGSTRASSER, A., Stuggart.
Handbuch der Architektur. IV. Theil, 5. Halb-Band, Heft 1. 1897.

CARRÉ, GEORGES, ET C. NAUD, Paris.
Optique Physiologique. Par Dr. Tscherning. 1898.

CASSELL AND CO., London.
The South African Climate. By William C. Scholtz, M.D. Edin. Illustrated. 1897.

CHAPMAN AND HALL, Henrietta-street, Covent-garden, London.
The Journals of Walter White, Assistant Secretary of the Royal Society. With a Preface by his brother, William White, and a Portrait. 1898. Price 6s.

CHURCHILL, J. & A., Great Marlborough-street, London.
Nettleship's Diseases of the Eye. Revised and edited by W. T. Holmes Spicer, M.A., M.B., F.R.C.S. Sixth edition. 1897. Price 8s. 6d.
Transactions of the Ophthalmological Society of the United Kingdom. Vol. XVII. Session 1896-97. With list of officers, members, &c. 1897. Price 12s. 6d.

GOELENTZ, O., Berlin W.
Zur Thätigkeit der Cellularen Körperelemente bei Infektionskrankheiten. Von Dr. B. Schurmayer, Hannover. 1897.
Untersuchungen ueber die Infektiosen Krankheiten der Harnorgane. Von T. Rovsing. 1898.

GEORG ET CIE., Bâle et Genève.
Dyspepsies nerveuses et Neurasthenie. Par Dr. P. Glatz. 1897.

HIRSCHWALD, A., Berlin.
Elemente der Pathologisch-Anatomischen Diagnose. Von Dr. O. Israel. 1898.

HOEPLI, ULRICO, Milano.
Manuali Hoepli—Sieroterapia. Del Dott. E. Rebuschini. 1898.

KIMPTON, H., High Holborn, London.
A System of Practical Medicine. By American Authors. Edited by A. L. Loomis, M.D., and W. G. Thompson, M.D. Vol. II. Illustrated. 1897. Price 25s. net.

LEHMANN, J. F., München.
Die typischen Operationen. Von Dr. E. Rotter. 5. Auflage. 1898.

LIPPINCOTT, J. B. COMPANY, London and Philadelphia.
The Practice of Surgery. By H. R. Wharton, M.D., and B. F. Curtis, M.D. Illustrated. 1898. Price 25s. net.

MASSON ET CIE., Paris.
Chirurgie du Poumon. Par Dr. Tuffier. 1897.

SAMPSON LOW, MARSTON, AND CO., Fetter-lane, Fleet-street, London.
Twentieth Century Practice. Edited by T. L. Stedman, M.D. Vol. XI., Diseases of the Nervous System. 1897.

SMITH, ELDER, AND CO., Waterloo-place, London.
English Sanitary Institutions: Reviewed in their Course of Development and in Some of their Political and Social Relations. By Sir John Simon, K.C.B. Second Edition. 1897. Price 18s.

THIEME, GEORG, Leipzig.
Handbuch der Ernährungstherapie und Diätetik. Von E. von Leyden. 1897.

WITHERBY AND CO., High Holborn, London.
Lean's Royal Navy List. October, 1897.
The Royal Navy List, Diary, and Naval Handbook for 1898. Price 3s. net.

WRIGHT AND CO., Bristol.
Epitome of Mental Diseases. By James Shaw, M.D. Irel. Second Thousand. With Appendix. 1897.

The Dental Surgeon's Daily Diary and Appointment Book, 1898 (John Bale and Sons, Great Titchfield-street, London, W.); prices 6s. and 7s. 6d.—The "Sunlight" Year-book for 1898; a Treasury of Useful Information; also a Story by Conan Doyle, with Portraits and Illustrations (Lever Brothers, Port Sunlight).—Magazines, &c., for December: Bailey's Magazine of Sports, &c., Strand Magazine, Boy's Own Paper; Girl's Own Paper, Leisure Hour, Sunday at Home, Sunday Hours, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Chapman's Magazine, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, Humanitarian, Christmas Number of Pears' Annual, and The Queen.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BERTRAM, T. D., M.B., Ch.M. Glasg., has been appointed a Government Medical Officer and Vaccinator for the district of Coonamble, New South Wales, vice E. O. Newland, resigned.

BODE, F. F. O., M.B. Sydney, has been appointed a Public Vaccinator for the District of Takaka, New Zealand.

BRENNER, ARTHUR, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Assistant Medical Officer to the Poplar Union Workhouse.

BRODRICK, C. CUMBERLAND, L.R.C.P., L.R.C.S., L.M. Edin., has been re-appointed Medical Officer of Health for the Tavistock Rural District.

EDGE, FREDERICK, M.D., M.R.C.S., M.R.C.P., B.S., B.Sc. Lond., has been appointed Surgeon to the Out-patients of the Birmingham and Midland Hospital for Women.

DYER, BERNARD, has been appointed Public Analyst for the County of Wilts.

GILRAY, G. V., M.B., Ch.M. Edin., has been appointed *pro tem.* a Government Medical Officer and Vaccinator for the District of Nyngan, New South Wales, vice W. H. Jermyn.

HAINES, H. G., L.R.C.P., F.R.C.S. Edin., has been appointed Surgeon-Lieutenant to the Auxiliary Forces, Tasmania.

HALFORD, A. C. F., M.B., Ch.B. Melb., has been appointed an Assistant Demonstrator of Pathology at the University of Melbourne, Australia.

JOHNSON, C. H., M.B., C.M. Edin., has been appointed a Public Vaccinator at Beeac, Victoria, Australia, vice R. A. A. Manly, resigned.

KENNEDY, T. J. M., M.B., Ch.B. Melb., has been appointed a Public Vaccinator at Leigh Road, Victoria, Australia, vice J. S. Park, resigned.

KENNY, F. H., M.R.C.S., L.S.A. Lond., has been appointed Health Officer for Nannine, Western Australia.

KOCH, E. A., M.D., Ch.D. Kiel, has been appointed a Visiting Surgeon to the Prison at Cairns, Queensland.

LAING, J. A., M.B., M.S. Edin., has been appointed a Health Officer for the Port of Gisborne, New Zealand, vice J. F. Innes.

MACANSH, WM., M.B., Ch.M., Edin., has been appointed Officer of Health at Brighton Town, Victoria, Australia, vice C. N. Simons, resigned.

MACDONALD, D., M.B., C.M. Glasg., has been appointed Medical Officer, for Glenmoriston, Inverness-shire.

MACKENZIE, J. H., L.R.C.S. Edin., has been appointed Officer of Health in and for the Town of Strahan, Tasmania.

MAILER, R., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed *pro tem.* Medical Officer for the Metropolitan Lunatic Asylum, Kew, Melbourne, Australia.

MANLY, R. A. A., M.B. Melb., has been appointed Officer of Health for Korong Shire, North and Central Ridings, Victoria, Australia, vice A. A. Rinder, resigned.

MULLICK, SARAT, M.B., C.M. Edin., has been appointed Resident Medical Officer to the National Hospital for the Diseases of Heart and Paralysis, Soho-square, London, W.

NISBET, W. B., M.B., Ch.M. Edin., has been appointed Health and Medical Officer at Townsville, Queensland.

RICHARDS, J. B. C., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer and Public Vaccinator for the Binbrook Sanitary District of the Louth Union.

SWETE, H. LAWTON, L.R.C.P., Lond., J.P., Medical Officer of Health for Fishguard, Pembrokeshire.

TRENOW, N. A. A., L.R.C.S. Irel., L.S.A. Lond., has been appointed Health and Medical Officer at Cooktown, Queensland.

WOOLLEY, G. T., M.R.C.S., has been appointed a Certifying Medical Officer under the Factories and Shops Acts for Castlemaine, Victoria, Australia, vice G. M. Reid.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident Assistant House Surgeon. Board, lodging, and washing provided in the hospital. No salary.

ATCHAM, CHURCH STRETTON, AND OTHER DISTRICTS.—Medical Officer of Health for one year. Salary £575, to include all expenses. Applications to Mr. J. Everest, Clerk, Atcham Union Offices, St. John's-hill, Shrewsbury.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Clinical Assistant for three months.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House Surgeon, unmarried. Salary £70 per annum, with furnished apartments, board, attendance, fire, and gas. Applications to the Secretary, 6, Bulwark, Brecon, South Wales.

CATERHAM ASYLUM, Caterham, Surrey.—Assistant Medical Officer for three years. Salary £120, rising at the discretion of the committee to £150, with board, lodging, attendance, and washing subject to statutory deduction. Forms of application obtained at the Chief Office of the Board, Norfolk House, Norfolk-street, Strand, W.C.

CHESHIRE COUNTY ASYLUM, MACCLESFIELD.—Junior Assistant Medical Officer for three years, unmarried. Salary £120, rising £10 yearly to £140, with board (no alcohol) and washing.

CHORLTON UNION.—Junior Resident Medical Officer at the Workhouse Hospitals, Withington, Manchester, for twelve months. Salary £120 per annum, with furnished apartments and attendance (but not rations) in the workhouse. Applications to the Clerk to the Guardians, Chorlton Union Offices, All Saints, Manchester.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £50 per annum, with board and residence.

CORPORATION OF MANCHESTER, MONSALL FEVER HOSPITAL.—Third Medical Assistant for one year. Salary £100 per annum, with board and lodging. Applications to the Town Clerk, Town-hall, Manchester.

DERBYSHIRE ROYAL INFIRMARY.—Resident House Surgeon and a Resident House Physician for twelve months. Salary of House Surgeon £100 per annum and of House Physician £80 per annum, with apartments and board in both cases.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Honorary Ophthalmic Surgeon.

HACKNEY UNION.—Second Assistant Medical Officer at the Workhouse and Infirmary at Homerton, N.E., unmarried. Salary £100 per annum, with rations (no beer), furnished apartments, washing, and attendance. Subject to statutory conditions. Applications to the Clerk to the Guardians, Clerk's Offices, Hackney Union, Homerton, N.E.

HERTFORD UNION.—Medical Officers and Public Vaccinators for the second and third districts. Salary No. 2 district £29 16s., No. 3 district £50 per annum, subject to certain conditions. Applications to the Clerk, Hertford.

KING'S COLLEGE, LONDON.—Professorship of Hygiene.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary £200 per annum. Also an Assistant Surgeon. £80 for the first year and £90 afterwards, with apartments, board, and attendance in each case. Both must be unmarried. Applications to the Secretary, 34, Moorfields, Liverpool.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant for one year at least. Salary £120 for the first year and £150 afterwards.

PARISH OF LIVERPOOL.—Assistant Medical Officer for the Workhouse, Brownlow-hill, unmarried. Salary £80 per annum, with rations, an additional sum of £20 being allowed for examining applicants for out-door relief. Applications to the Vestry Clerk, Parish Offices, Brownlow-hill.

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer for 1899.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Non-resident Assistant House Surgeon to Out-patient Department. Salary £75 a year.

ROYAL VICTORIA HOSPITAL, Bournemouth.—Ophthalmic Surgeon.

SHANGHAI.—Medical Officer of Health for three years. Salary taels 4500 (about £600) a year. Unfurnished quarters, consisting of bedroom, bath-room, and sitting-room. Means of conveyance provided. Apply to Dr. Sims Woodhead, Examination Hall, Victoria Embankment, London, E.C.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

UNIVERSITY OF ABERDEEN.—Two additional Examiners for Graduation.

UNIVERSITY COLLEGE, London.—Surgical Registrar.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Dental Surgeon.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House Surgeon for six months. Board, lodging, and washing in the hospital provided.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard-street, Soho, W.—Resident Medical Officer for one year.

Births, Marriages, and Deaths.

BIRTHS.

BROADBENT.—On Nov. 29th, at Brunswick-place, Brighton, the wife of Walter Broadbent, M.B. Cantab., M.R.C.S., L.R.C.P. Lond., of a daughter.

COATES.—On Nov. 14th, at Vancouver, Streatham, S.W., the wife of M. Coates, M.D., of a daughter.

FISHER.—On Nov. 29th, at Ramsey, Huntingdon, the wife of W. Fellowes Fisher, M.B. Durh., of a son.

FRASER.—On Nov. 30th, at Leigh, Tunbridge, the wife of Frank Fraser, M.D., of a son.

MACVICKER.—On Nov. 23rd, at Isleham, Cambs., the wife of C. G. MacVicker, B.A., M.B., of a son.

MILLHOUSE.—On Nov. 27th, the wife of George Millhouse, M.R.C.S., L.R.C.P., Kirkstall, Leeds, of a son.

MARRIAGES.

GOOD—WILLIAMS.—On Nov. 18th, at Holy Trinity Church, Wallington, Surrey, by the Rev. G. H. Pole, J. Ernest Good, M.B., C.M., of Adelaide, South Australia, to Minnie, second daughter of H. E. Williams, of the Home Office, Whitehall.

PODMORE—AMOR.—On Nov. 26th, at Stepney Parish Church, Robert Podmore, M.R.C.S. Eng., Linden-gardens, Chiswick, to Henrietta Catherine, youngest daughter of Robert Amor, Esq., of Limekiln Dock and Burdett-road, Limehouse.

STANWELL—COX.—On Nov. 24th, at St. Matthew's Church, Ealing, by the Rev. C. Stanwell, M.A., vicar of Ipsden, uncle of the bridegroom, assisted by the Rev. H. C. Douglass, M.A., vicar of the parish, Charles Oliver Stanwell, L.R.C.P. & S. Edin., Darwen, second son of the late William Stanwell, M.R.C.S., of Rochdale, to Sarah Katharine, youngest daughter of the late Henry Rix Cox, Rathmines, Dublin.

WAKEFIELD—CHADWICK.—On Nov. 25th, at Christ Church, New Malden, Christopher Frank Wakefield, M.R.C.S. Eng., L.R.C.P. Lond., Lincoln Lodge, Horley, to Sophia, eldest daughter of the late James Chadwick, Esq., of York.

WHITE—DAVIES-COLLEY.—On Dec. 1st, 1897, at the Julfa Mission Church, Ispahan, Persia, by the Right Rev. Bishop Stuart, D.D., Henry White, M.R.C.S. Eng., M.R.C.P. Lond., to Eleanor Constance, daughter of the late T. Davies-Colley, M.D., of Newton, Chester.

WILLIAMS—WALLACE.—On Nov. 25th, at Christ Church, Lancaster-gate, Campbell Williams, F.R.C.S., to Isita Eglantine Agnew Wallace, daughter of the late Robert Agnew Wallace, of Rhynd, Dunfermline, N.B.

DEATHS.

CHIPPERFIELD.—On Nov. 17th, at Inverness Lodge, Strawberry-hill, Elizabeth Susan, widow of the late Surgeon-Major William Nathan Chipperfield, A.M.S., Professor of Medicine, Medical College, Madras, aged 67 years.—R.I.P.

FALLS.—On Nov. 26th, at Montpelier-street, S.W., suddenly, William Coulthard Falls, M.B. Oxon, aged 44 years.

FREEMAN.—On Nov. 28th, at his residence, 24, The Circus, Bath, Henry William Freeman, in his 56th year.

MARSH.—On Nov. 27th, at Cheltenham, Dr. T. P. P. Marsh, aged 91 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.).

THURSDAY (9th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.).

FRIDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (11th).—Royal Free (9 A.M. and 2 P.M.), Middlesex, (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (7th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Prof. Rose Bradford: Experimental Atrophy of the Kidney.—Mr. S. G. Shattock: Negative Action of Sewer Air in raising the Toxicity of Non-virulent Diphtheria Bacilli.—Mr. H. C. Haslam: A Note on the Morphology of the Colon Bacillus.—Mr. Strangeways-Pigg: Four Unusual Cases of Melanotic Sarcoma.—Mr. F. C. Abbott: Congenital Abnormality of the Sternum and Diaphragm with Downward Displacement of the Heart.—Mr. Parkes Weber: A Heart with Extreme Calcification of the Aortic and Mitral Orifices from a Case which presented exceptional Physical Signs.—Dr. F. W. Andrewes and Mr. James Berry: Nose and Lung from a case of Glanders (Human).—Prof. McFadyean: Lung from a Case of Glanders (Horse).

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square, W.C.).—8 P.M. Paper:—Mr. C. Tomes: Partial Suppression of Teeth in a very Hairy Monkey (Colobus Caudatus). Communications:—Mr. R. Barrett: A Case of Composite Odontome in the Lower Jaw.—Mr. G. Thomson: Chloroform in Dental Surgery.—Mr. H. Ll. Williams: Excision of Necrosed Roots.

ROENTGEN SOCIETY (Medical Society's Rooms, 11, Chandos-st., W.).—8.30 P.M. Paper:—Mr. A. A. C. Swinton: Adjustable X-Ray Tubes.

WEDNESDAY (8th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Clinical Evening. Cases will be shown by Dr. A. T. Davies, Dr. Appleford, Dr. Kelson and Dr. G. H. Sequeira.

MEDICAL SOCIETY OF UNIVERSITY COLLEGE (London).—8.30 P.M. Mr. A. Pearce Gould: University College Hospital Thirty Years Ago.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases and Specimens will be shown by Dr. J. Horne, Dr. Pegler, Mr. W. Wingrave, Mr. de Santi, Dr. Bond, Dr. S. Spicer, Dr. H. L. Lack.

THURSDAY (9th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-sq., W.).—8 P.M. Patients and Card Specimens. Cases will be shown by Mr. W. J. Cant, Mr. Hartridge, Mr. Holmes Spicer, Mr. Stanford Morton, Mr. Lawford, and others.

HARVEIAN SOCIETY.—8.30 P.M. Mr. Juler: The Syphilitic Diseases of the Eye and its Appendages. (Harveian Lecture.)

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Specimens will be shown by Mr. O'Callaghan. Papers:—Dr. J. A. Shaw-Mackenzie: Hæmorrhagic Endometritis.—On the Dangers to the Ureters in performing Hysterectomy.

FRIDAY (10th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Paper:—Mr. A. Pearce Gould: A Case of Acute Intestinal Obstruction relieved by Operation, Death from Intestinal Toxæmia on the Ninth Day after Operation.—Mr. C. B. Lockwood: A Case of Radical Cure of Inguinal Hernia. Injury to the Bladder, Formation of Phosphatic Calculi, Lithotrity, Recovery.—Mr. A. E. Barker: Fifteen Consecutive Cases of Acute Intussusception.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

TUESDAY (7th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

HOSPITAL FOR NERVOUS DISEASES (73, Welbeck-street).—4.30 P.M. Dr. Fletcher Beach: On Cases of Epilepsy and other Convulsive Disorders of the Nervous System.

WEDNESDAY (8th).—HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. H. Mackenzie: Mitral Stenosis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. D. Hood: Albuminuria.

THURSDAY (9th).—THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Colman: Demonstration of Selected Cases.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 2nd, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 26	30·50	S.W.	0·04	62	51	34	34	35	Hazy
,, 27	30·07	S.W.	0·40	56	55	35	50	51	Cloudy
,, 28	29·85	S.W.	0·08	54	51	44	44	45	Raining
,, 29	29·29	NNW	0·01	64	46	39	39	44	Stormy
,, 30	29·69	W.	0·05	64	53	34	43	45	Raining
Dec. 1	29·44	W.	...	60	47	40	39	40	Cloudy
,, 2	30·00	N.E.	...	62	43	37	37	38	Cloudy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

THE WATER-SUPPLY OF ROME.

To the Editors of THE LANCET.

SIRS,—Your correspondent, Dr. Wyckoff, to whom you replied in THE LANCET of Nov. 6th, page 1231, had probably in his mind the opening on Sept. 10th, 1870, of the Acqua Marcia, which, though the hardest of the four chief supplies, is looked on as the best, being the coldest of all the thirteen sources. The Acqua Paola is the softest and the Vergine the most aerated, the Felice being, save in its higher temperature, almost identical with the Marcia. Pope Sextus V. and his engineer, Pompilio Eusebi, of Perugia, included the Marcia in their scheme for the re-opening of the ancient aqueducts, which received the Papal approval in 1589, but the death of the Pope intervening the commissioners dropped it and confined their operations to the other three. But excellent as are these waters there were until recently at any rate a number of shallow wells in use, of which Dr. Francisco Marino-Zuco and Dr. Guido Fabris declared in 1885, "La composizione chimica di queste acque, adattatissima alla coltura dei germi viventi, e *le loro posizione molto prossima alle fognature*, da cui possono ricevere le putride infiltrazioni e i germi morbigeni, i quali trovebbero in esse liquidi fertili per la loro propagazione, ci fanno concludere che *l'uso delle dette acque non è soltanto nocivo a chi ne beve, ma è altresì molto pericoloso per la salute pubblica*, e perciò nello interesse della pubblica igiene *deve essere rigorosamente proscritto*." If the municipality from whose "Bulletino" I have taken this extract have carried out the earnest recommendation of their own official chemical advisers and closed the city wells there certainly has been "an improvement in the water-supply" such as Dr. Wyckoff inquires about and that within the last dozen years.

I am, Sirs, yours faithfully,

Nov. 29th, 1897. M.D

"WANTED SUGGESTIONS FOR TREATING A GANGRENOUS ULCER."

To the Editors of THE LANCET.

SIRS,—In reply to a letter in THE LANCET of Nov. 27th from Mr. John D. Rice asking for suggestions for the treatment of gangrenous ulcers I would recommend him to try pulvis cinchonæ dusted over the ulcer night and morning with complete rest in bed. This treatment was, I believe, suggested by Dr. Sidney Ringer in his book on Therapeutics some years ago. I have frequently found it succeed when all other treatment has failed. The following case which I now have under my care illustrates this method of treatment. A woman, aged seventy-five years, about two months ago fell down and grazed her right shin. She treated herself for two weeks with poultices and warm fomentations. When I first saw her she had a large, acutely painful gangrenous ulcer about 3 in. by 4 in. in size. The edges were undetermined and the surrounding skin was inflamed and boggy with several large bullæ filled with dark blood-stained serum. The surface of the ulcer was very irregular, varying in depth from an eighth to a quarter of an inch, completely destroying the subcutaneous tissue and involving the muscular layer. The ulcer was partly covered with black sloughs and the discharge was abundant and offensive. All loose sloughs were removed and the ulcer was bathed with boracic lotion and carefully dried and then well dusted with powdered cinchona bark; the wound was covered with linen rag, the limb enveloped in cotton-wool and elevated on pillows. The dressing was changed night and morning and the wound well washed with boracic lotion and powdered on each occasion. The powder has a tendency to "cake" and such crusts require carefully removing every third day. Under this treatment the ulcer rapidly decreased in area and depth, the remaining sloughs dropped off, and healthy granulations made their appearance. The discharge lessened and was no longer offensive. The pain ceased and the surrounding skin became firm and healthy. The progress towards recovery has been continuous and at the date of writing the wound has practically ceased to exist. I should be glad if any gentlemen who have adopted this treatment would communicate results.—I am, Sirs, yours faithfully,

EDWARD MONRO SPOONER, M.D. St. And.

Blandford, Dorset, Nov. 29th, 1897.

A Sufferer.—The abuse is rife all over the kingdom. If our correspondent will send a statement on the matter to us (in the signature of which other medical men in the neighbourhood should join) we will consider the desirability of its publication.

CHEMICAL NOMENCLATURE.

SOME change must soon be made in chemical nomenclature or a large portion of a lecture on chemistry will be occupied in articulating the name of the subject which it is proposed to discuss. In a late number of the *Comptes Rendus* MM. A. Haller and A. Guyot describe a new substance they have obtained which has the portentous title of the "tétramethyldiamidodiphenyldianthranoltetramethylédiamidé symmetrical with the corresponcent oxanthranol." This, we think, would be hard to beat even amongst German sesquipedalian words. The chemists want a Linnæus.

F. H.—We doubt if any good would be done by pointing out the childish and mischievous absurdities of a quack's circular in our columns. All readers of THE LANCET know that such literature is stuffed with lies aimed at the credulity and the purse of the unfortunate public. We recommend our correspondent to enclose the circular to the Parliamentary representative of his electoral division and to ask whether in the near future such frauds cannot be stopped by legislation.

BIRTHS AND DEATHS IN LONDON.

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me how to obtain the register of births and deaths in London this year, 1897?—I am, Sirs, yours truly,

Sheerness, Nov. 23rd, 1897. L.R.C.P.

*** The figures for the last quarter of 1897 obviously cannot be given; for the three completed quarters of the year the figures are appended.—ED. L.

1897.	Births.	Deaths.
First quarter	34,643	20,504
Second quarter	32,412	17,261
Third quarter	33,722	21,560
Three quarters	100,777	59,325

Mr. T. Hebb.—Our correspondent would not be justified in recommending the treatment or using it under cover of another name or method. He can only try to wean the persons concerned from the error of their ways.

THE ETHICS OF DEATH CERTIFICATION.

To the Editors of THE LANCET.

SIRS,—I should be glad of the opinion of your readers on a point of conduct which has given me some qualms. Some time since I was called to see a child of eight years who after the ordinary evening meal, composed of a milk pudding of some kind, became violently sick and brought up a considerable quantity of blood. There was severe diarrhœa and the temperature shortly ran up to 104° F. I must confess that I was at a loss to explain these symptoms except on the assumption that the child had swallowed an irritant poison or had taken a sharp fragment with the food. A neighbouring practitioner was called in to assist me but neither he nor any one of the others who were called in consultation could throw any light on the nature of the illness. Ultimately the child became delirious and died within three days. From every point of view I should have liked a post-mortem examination but to this the parents demurred. Convinced as I was and am that death was due to natural causes I, after some hesitation, certified that death was due to gastritis, an accurate diagnosis no doubt but under the circumstances somewhat misleading. I wish to know whether my conduct commends itself to my fellow practitioners, or whether I ought to have offered the bereaved parents the alternative of a post-mortem examination or an inquest on the ground that I was unable to certify that whereof I was admittedly ignorant. An expression of opinion on this subject may serve as a guide not only to me but to other practitioners who happen to find themselves landed in a similar dilemma.

I am, Sirs, yours faithfully,

Nov. 29th, 1897. INTIMIDAD.

Ignoramus is recommended to follow the custom of the place, to be ascertained by inquiring from one of the resident medical men.

"A TESTIMONIAL TO DR. JOHN T. ARLIDGE."

To the Editors of THE LANCET.

SIRS,—Will you kindly oblige by inserting in THE LANCET the subjoined additional subscriptions to the testimonial for Dr. J. T. Arlidge, Mr. W. H. Folker, F.R.C.S. Eng., of Hanley, has kindly undertaken to receive subscriptions locally. Sir Thomas Wardle, President of the Silk Association of Great Britain and Ireland, has also kindly joined the committee.

I am, Sirs, yours truly,

CHAS. F. MOORE.

10, Upper Merrion-street, Dublin, Nov. 30th, 1897.

	£	s.	d.
Mr. J. H. Tylecote, M.D. St. And	0	10	6
Mr. Thos. Salt, M.R.C.S. Eng., L.R.C.P. Lond.	1	1	0
Mr. Joseph Bell, F.R.C.S. Edin.	1	1	0
Dr. F.	1	1	0
Mr. J. J. Ritchie, M.R.C.S. Eng., L.S.A.	0	5	0
Mr. Jas. Holmes, M.D. Edin.	0	10	6
Mr. Urban Pritchard, M.D. Edin., F.R.C.S. Eng....	2	2	0
Mr. A. Going Pritchard	2	2	0
Mr. Thomas Twyford ...	1	1	0
Mary Ford...	1	1	0
Mr. George Menzies ...	1	1	0

A Disgusted M.D. is recommended to bring the matter before the General Medical Council. In doing so he will be careful to enclose copies of both papers and he would be well advised to secure the coöperation of other practitioners in the neighbourhood.

"A BOOK ON STAMMERING."

To the Editors of THE LANCET.

SIRS,—I note on p. 1433 of THE LANCET of Nov. 27th a request to indicate a small book on "Stammering," &c. I have put forth a booklet on the subject entitled "Lip Chorea," published by Bale, 85, Great Titchfield-street, W., at 1s. net.—I am, Sirs, yours faithfully,

64, Seymour-street, W., Nov. 27th, 1897. EDWARD BLAKE.

To the Editors of THE LANCET.

SIRS,—The little book on Stammering—constantly advertised in your columns—by the late Emil Behnke, and edited by his widow, answers all purposes, being free from the faults of most of such essays and founded on that sound knowledge of physiology which is essential to the successful and permanent treatment of all defects of speech.

I am, Sirs, yours faithfully,

Nov. 29th, 1897. ELLBEE.

*** Mr. G. Phillips and Mr. J. F. Hallows also wish to call the attention of "W. R. K." to the late Emil Behnke's book.—ED. L.

Mr. N. Fredin.—It is within the discretion of the coroner to call either medical witness or both.

A REMEDY FOR SEVERE LUMBAGO.

To the Editors of THE LANCET.

SIRS,—In answer to "L.R.C.P.," who asked in THE LANCET of Nov. 13th for a remedy for lumbago, I may state that I have had good results with ammonii chloridum (gr. xx.) combined with ammonii carbonas (gr. v.), or a mixture: ammonii chloridi ʒiii., liquoris hydrargyri perchloridi ʒss., spiritus chloroformi ʒss., infusum gentianæ compositum ad ʒvi.; ʒss. ter in die ex aqua.

I am, Sirs, yours, faithfully,

R. STUART BENNIE, M.A., M.B., C.M.

Dobeross, Saddleworth, Yorkshire, Nov. 18th, 1897.

A STORY OF MORALS.

To the Editors of "THE LANCET."

SIRS,—I make no comment on the following case which I have fully investigated and every fact of which I can prove and have proved in conjunction with a colleague. A child of eleven years was suffering from a purulent vaginal discharge which proved to be gonorrhœa. On investigation it was discovered that this child had contracted it from her uncle; she had given it to her brother aged seven years, who in turn had passed it on to his sister aged three years. The boy of seven years had a very bad attack with phimosis and the girl of three years had it somewhat severely. On further investigation the following side-lights were discovered. The girl of eleven years felt no discomfort through connexion with an adult man of about thirty years; rather the contrary. She gives a graphic and evidently truthful account of her seduction, at the age of eight years, by a boy four years her senior, since which time she has been living in frequent sexual intercourse with boys. The mother of this child three years ago gave the father syphilis and was turned out of doors, since which time she has not been back and is believed to be living the life of a common prostitute. The uncle was confronted with the girl who accused him of having given her gonorrhœa and on being pressed confessed in the presence of the girl's father and the husband of his own sister that it was true and that he had done it to get rid of his own disease, having succeeded in doing so in this way on four other occasions. Meanwhile the girl's father and the other man, who were present when the remark was made, stood placid and indifferent, expressing neither indignation, disgust, nor surprise.

I am, Sirs, yours faithfully,

Dec. 1st, 1897. M.R.C.S.

Spectator brings to our notice a matter to which we have given attention before. The publisher distributes books to the press, and is therefore indirectly responsible for the publicity given to medical authors in a lay paper.

THE TITLE OF DOCTOR.

To the Editors of THE LANCET.

SIRS,—I should be much obliged if you will kindly give your opinion as to whether a graduate of a university, say M.B., B.S., or M.B., C.M., has the right to use the word "Surgeon." Graduates are very jealous if a simple diplomate uses the word "Doctor."

I am, Sirs, yours faithfully,

Nov. 30th, 1897. ENQUIRER.

*** A Bachelor of Surgery is a *surgeon* by right; a Bachelor of Medicine has been styled a *doctor* by courtesy and long-established custom, probably because the gap between his position and the position of Doctor of Medicine has been very small, although the modern tendency is to widen it. A diplomate of a corporation cannot make his *membership* or *license* carry the title of *Doctor*. The trouble arises, as we have so often pointed out, from the fact that the public use as a popular title for a medical man the academic title which happens to pertain to one group of medical men.—ED. L.

RUS.—The matter is one for the Council's discretion. The last superintendent of an asylum under the Council's jurisdiction who resigned his office received a pension, which would seem to indicate the Council's views.

R. R.—THE LANCET, vol. i., 1896, contains several papers on the subject.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Heywood Advertiser, Birmingham Gazette, Bradford Observer, Accrington Observer, Newbury Weekly News, Preston Guardian, Carlisle Journal, Kentish Express, Times of India, Pioneer Mail, Cambridge Express, Halifax Guardian, East Anglian Daily Times, Western Morning News, Glasgow Herald, Architect, Dundee Advertiser, Manchester Courier, Builder, Yorkshire Post, Sheffield Telegraph, Sussex Daily News, Grantham Journal, Halifax Guardian, Norfolk Chronicle, Liverpool Daily Post, Kidderminster Shuttle, Derbyshire Times, Newport Advertiser, Northampton Mercury, Kendal Mercury, Leicester Post, Bristol Mercury, Lowestoft Standard, Keighley News, Doncaster Chronicle, Cheltenham Mercury, North Wilts Herald, Grimsby News, Essex County Chronicle, Somerset County Gazette, Worcester Chronicle, Freeman's Exmouth Journal, Sanitary Record, Lisburn Standard, Brighton Gazette, Mining Journal, Hertfordshire Mercury, Local Government Chronicle, Reading Mercury, City Press, Newbury Weekly News, Weekly Free Press and Aberdeen Journal, Local Government Journal, Surrey Advertiser, Australasian Medical Gazette, Townsville Daily Bulletin, Keighley Herald, Jarrow Guardian, Carnarvon Herald, Leeds Mercury, West Middlesex Herald, Clifton Chronicle, Pullen's Kent Argus, Radcliffe Express, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Apothecaries' Hall of Ireland, Dublin, Secretary of; Messrs. Arnold and Sons, Lond.; A. B., Merthyr Tydfil; Apollinaris Co., Lond.

B.—Mr. E. Baker, Birmingham; Birmingham and Midland Hospital for Skin &c., Diseases, Hon. Secretary of; Messrs. W. J. Bush and Co., Lond.; Mr. A. S. Barling, Lancaster; Dr. Brand, Dortmund; Bristol Medical Library, Hon. Secretary of; Dr. B. W. Bond, Godalming; Messrs. J. B. Brooks and Co., Birmingham; Mr. G. P. Butcher, Plymouth; Messrs. Burgoyne, Burbidges, and Co., Lond.; Messrs. Burroughs, Wellcome, and Co., Lond.; Dr. E. Blake, Lond; Mr. W. H. Bull, Stony Stratford.

C.—Mr. J. Clay, Shrewsbury; Mr. J. Caldwell, Brighouse; Messrs. Cassell and Co., Lond.; Messrs. T. Cook and Son, Lond; Mr. F. W. Clarke, Manchester; Mr. E. M. Camis, Paris, Cardiff Medical Society, Secretary of; Charlton Union, Clerk of; Mr. A. C. L. Cole, Lond.; Cheshire County Asylum, Macclesfield, Clerk of; C.A.M.W.A.L., Lond.

D.—Mr. Dowies, Edinburgh; Mr. A. W. Down, Lond.; Sir John Dorington, Stroud; Denneyer's Peptonoids and Extract of Meat Co., Lond.; Durham County Asylum, Winterton, Steward of; Miss Davies-Colley, Higher Broughton.

E.—Mr. T. G. C. Evans, Budleigh-Salterton; Mr. A. R. Edwards, Aachen; École de Médecine et de Pharmacie, Grenoble, Librarian of.

F.—Mr. W. T. Freeman, Reading. First Swiss Wine "Sans Alcohol" Co., Lond.; Messrs. Fannin and Co., Dublin; Dr. D. Fennell, Lond.; Messrs. Fletcher, Fletcher, and Co., Lond.; F.R.C.S., London; Mr. J. Fallows, Lond.

G.—Dr. G. A. Gibson, Edinburgh; General Apothecaries' Co., Lond; Mr. T. Gaddes, Harrogate; Messrs. R. W. Greeff and Co., Lond.; Messrs. Gilyard Bros., Bradford; Messrs. G. Gale and Sons, Birmingham.

H.—Dr. G. Herschell, Lond.; Dr. Harford-Battersby, Lond.; *The House*, Lond., Proprietors of; Dr. J. B. Hellier, Leeds; Messrs. Hampton and Sons, Lond; Hertford Union, Clerk of; Messrs. Hertz and Collingwood, Lond.; Mr. Reginald Hansell, Lond.; Mr. J. Hicks, Leeds; Mr. J. Heywood, Manchester.

I.—Infirmary Medical Superintendents' Society, Lond., Hon. Secretary of; Investors and Contract Agency, Lond., Secretary of.

J.—Messrs. T. Jones and Co., New Ross; Jenner Institute for Calf Lymph, Battersea, Secretary of; Messrs. W. and A. K. Johnston, Edinburgh.

K.—Dr. G. E. Keith, Lond.; Messrs. Krohne and Sesemann, Lond; Messrs. H. and T. Kirby and Co., Lond.

L.—Dr. J. F. Little, Lond.; Messrs. Lee and Nightingale, Liverpool; M. H. Littlewood, Leeds; Mr. E. Landon, Lond.; Messrs. Lorimer and Co., Lond.; Mr. Lewis, Lond.; Mr. F. C. Larkin, Liverpool.

M.—Mr. R. D. Morgan, Pontypridd; Dr. C. Martin, Birmingham; Mr. K. W. Millican, St. Louis, Mo.; Dr. Mackay, Devizes; Maltine Manufacturing Co., Lond.; Manchester Corporation, Medical Officer of Health of, Milk Preparations Co., Brentwood; Medico, Lond., Mellin's Food Works, Lond.; Major, Lond.

N.—Nottingham Union, Clerk of; Dr. C. Nedwill, Christchurch, N.Z.

O.—Messrs. Oppenheimer, Son, and Co., Lond.

P.—Dr. N. O'D. Parks, Ashton, R. I., U.S.A.; Messrs. Parke, Davis, and Co., Lond.; Messrs. Parry and Co., Lond.; Plymouth Medical Society, Secretary of; Mr. A. De Bock-Portir, Lond.; Mr. J. B. Pike, Loughborough; Peptenzyme Co., Lond.

Q.—Queen Charlotte's Lying-in Hospital, Lond., Secretary of.

R.—Dr. H. D. Rolleston, Lond.; Dr. J. S. R. Russell, Lond.; Messrs. Robertson and Scott, Edinburgh; Dr. J. Radzimovski, Station Okulovka, Russia; Mr. E. Ringrose, Newark; Ross, Ltd., Lond.; Royal Medical Benevolent College, Lond., Secretary of.

S.—Mr. W. J. Smith, Brighton; Messrs. Street and Co., Lond.; Mr. E. H. Shaw, Cambridge; Major-General A. de C. Scott, Lond.; Dr. A. Smart, Edinburgh; Mr. T. R. Seymour, Bristol; Surgeon Captain R. R. Sleman, Lond; Dr. E. J. Smyth, Lond.; Spectator, Bradford; Mr. Noble Smith, Lond; Messrs. R. Stanley and Co., Lond.; S. E., Lond.; Singer Cycle Co., Coventry.

T.—Mr. J. C. Taylor, Gronville, Jersey; Tower Tea, Ltd., Lond.; Dr. C. C. B. Tyrie, Keighley; Messrs. J. Turner and Co., Queensferry.

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